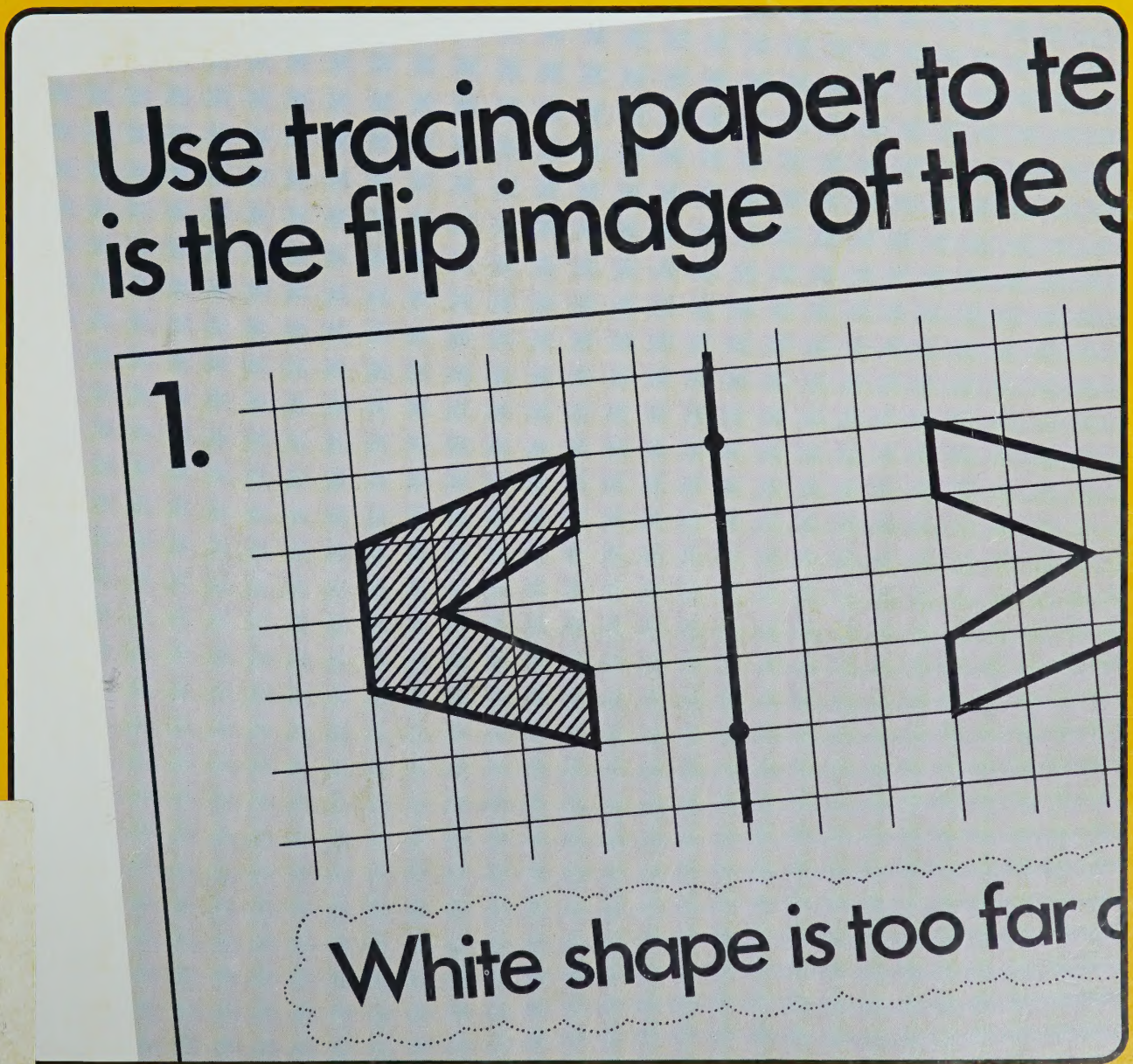
# starting points in mathematics 5

## Workbook

### Teacher's Edition

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Each of these workbook lessons contains a code line that refers to the corresponding textbook pages. These lessons provide additional practice with the topics in the textbook. Most include a helpful built-in review feature of the required skills or concepts. You may adapt this feature for diagnostic, instructional, or evaluative purposes.

The workbook also includes *Practice* lessons. Halfway through most units there is a full-page *Practice* that reviews the unit topics studied to that point. At the end of each unit there is a full-page *Practice* that reviews computational skills or solving word problems. A unit may also contain one or more half-page *Practice* lessons on word problems.

Students who are assigned work in lessons that correspond to textbook lessons should be those who have exhibited difficulty in understanding the material in the textbook or those who could profit from further practice. Any student, however, could profit from the review provided by the *Practice* lessons, whether these lessons review unit topics, provide mixed-computation exercise sets, or provide mixed-computation word problem sets.

This Teacher's Edition differs from the student's workbook in that it includes these notes and exercise answers in red.

The following illustrates the structure of a lesson that corresponds to a textbook lesson.

1 Lesson title
Matches title of corresponding textbook lesson

2 Code line
Textbook/Unit/Page

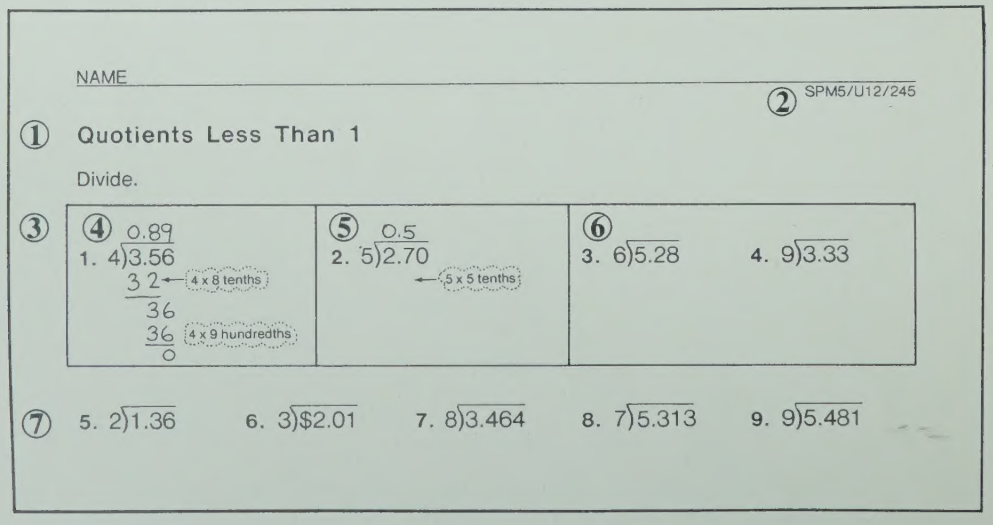
3 Diagnostic/instruction box

4 Completely-worked example

5 Partially-worked example

6 Decision exercises
Check students' understanding

7 Additional practice




Continued on the inside of the back cover.

Workbook for

# starting points in mathematics

Level 5

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NAME

SPM5/U1/4-5

## Numbers to 999 999

Write in standard form.

| | |
|---|---|
| 1. four hundred eighty thousand 480 000 | 2. eighty thousand four hundred 80 400 |
| 3. 3 ten thousands 2 thousands 32 000 | 4. 5 ten thousands 2 tens 50 020 |
| 5. 60 000 + 8 000 + 200 68 200 | 6. 500 000 + 10 000 + 300 + 20 510 320 |

7. seventy-five thousand 75 000
8. one hundred three thousand sixty 103 060
9. 9 ten thousands 9 hundreds 90 900
10. 3 hundred thousands 8 ten thousands 380 000
11. 300 000 + 5 000 + 4 305 004
12. 70 000 + 200 + 10 70 210

Write in expanded form.

13. 50 403 50 000 + 400 + 3
14. 450 709 400 000 + 50 000 + 700 + 9

What does each 5 mean?

15. 75 121 5 thousands
16. 529 342 5 one hundred thousands
17. 156 360 5 ten thousands

SPM5/U1/6-7

## Numbers to 999 999 999

Write in standard form.

| | |
|---|---|
| 1. three hundred one million 301 000 000 | 2. ninety million five thousand 90 005 000 |
| 3. 2 ten millions 6 millions 26 000 000 | 4. 1 ten million 4 ten thousands 10 040 000 |
| 5. 30 000 000 + 900 000 30 900 000 | 6. 5 000 000 + 80 000 5 080 000 |

7. sixty-eight million 68 000 000
8. five million two hundred thousand 5 200 000
9. 3 millions 7 ten thousands 3 070 000
10. 2 hundred millions 5 ten millions 250 000 000
11. 400 000 000 + 600 000 400 600 000
12. 50 000 000 + 7 000 000 + 8 000 57 008 000

Write in expanded form.

13. 70 450 000 70 000 000 + 400 000 + 50 000
14. 2 030 600 2 000 000 + 30 000 + 600

What does each 2 mean?

15. 200 384 000 2 hundred millions
16. 82 435 000 2 millions
17. 125 005 800 2 ten millions

NAME

SPM5/U1/8-9

## Comparing and Ordering Numbers

Write > or < to make a true statement.

1. 12 452 > 11 799
2. 142 850 < 148 250
3. 25 500 < 25 999

List from least to greatest.

4. 62 712, 67 821, 62 791, 62 197
   62 197, 62 712, 62 791, 67 821
5. 12 345, 13 572, 13 532, 13 525
   12 345, 13 525, 13 532, 13 572

Write > or < to make a true statement.

6. 53 214 < 53 624
7. 33 456 < 34 120
8. 72 766 > 72 754
9. 123 567 < 125 367
10. 224 123 > 214 123
11. 32 132 < 33 122

List from least to greatest.

12. 38 413, 31 183, 31 148, 38 143
    31 148, 31 183, 38 143, 38 413
13. 213 232, 223 231, 232 312, 212 233
    212 233, 213 232, 223 231, 232 312
14. 81 181, 18 118, 81 811, 811 118
    18 118, 81 181, 81 811, 811 118
15. 115 212, 121 252, 112 152, 115 122
    112 152, 115 122, 115 212, 121 252

SPM5/U1/10-11

## Rounding

Round to the nearest

| | hundred | thousand | ten thousand | hundred thousand |
|---|---|---|---|---|
| 1. 729 354 | 729 400 | 729 000 | 730 000 | 700 000 |
| 2. 88 349 | 88 300 | 88 000 | 90 000 | 100 000 |
| 3. 146 676 | 146 700 | 147 000 | 150 000 | 100 000 |
| 4. 237 768 | 237 800 | 238 000 | 240 000 | 200 000 |
| 5. 66 639 | 66 600 | 67 000 | 70 000 | 100 000 |
| 6. 296 473 | 296 500 | 296 000 | 300 000 | 300 000 |
| 7. 53 829 | 53 800 | 54 000 | 50 000 | 100 000 |
| 8. 336 500 | 336 500 | 337 000 | 340 000 | 300 000 |
| 9. 870 318 | 870 300 | 870 000 | 870 000 | 900 000 |
| 10. 20 793 | 20 800 | 21 000 | 20 000 | 0 |

NAME _____

## Practice

What does each 9 mean?

1. 149 752 — 9 thousands
2. 966 802 — 9 hundred thousands
3. 195 000 — 9 ten thousands

Write each in standard form.

4. 6 ten thousands 2 hundreds — 60 200
5. four hundred two thousand — 402 000
6. 700 000 + 8 000 + 60 + 8 — 708 068
7. 50 000 + 300 + 1 — 50 301
8. four hundred thousand two — 400 002
9. four thousand two hundred — 4200

Write each in expanded form.

10. 150 025 — 100 000 + 50 000 + 20 + 5
11. 73 306 — 70 000 + 3 000 + 300 + 6

Use >, <, or = to make a true statement.

12. 52 637 ___ 52 367 — >
13. 108 294 ___ 108 294 — =
14. 473 733 ___ 477 373 — <
15. 95 026 ___ 95 206 — <

List from least to greatest.

16. 13 463, 13 643, 14 364, 13 436 — 13 436, 13 463, 13 643, 14 364
17. 208 682, 280 286, 208 628, 208 626 — 208 626, 208 628, 208 682, 280 286

Round to the nearest thousand.

18. 30 792 — 31 000
19. 47 500 — 48 000
20. 79 740 — 80 000

Round to the nearest hundred thousand.

21. 245 396 — 200 000
22. 392 175 — 400 000
23. 608 800 — 600 000

What does each 4 mean?

24. 14 387 201 — 4 millions
25. 143 872 010 — 4 ten millions

Write each in standard form.

26. twenty-three million eight hundred five thousand forty-eight — 23 805 048
27. three hundred sixty million twenty-three thousand seven hundred — 360 023 700

Use >, <, or = to make a true statement.

28. 9 260 300 ___ 9 206 308 — >
29. 473 532 868 ___ 475 352 868 — <

List from least to greatest.

30. 13 473 747, 3 747 374, 13 473 473, 13 447 374 — 3 747 374, 13 447 374, 13 473 473, 13 473 747

Round to the nearest million.

31. 84 703 159 — 85 000 000
32. 7 195 376 — 7 000 000

NAME _____

## Skills Review -- Addition Facts

Add.

| | | | | |
|---|---|---|---|---|
| 1. 5 + 2 = 7 | 2. 8 + 7 = 15 | 3. 3 + 9 = 12 | 4. 7 + 4 = 11 | 5. 5 + 6 = 11 |
| 6. 8 + 6 = 14 | 7. 2 + 9 = 11 | 8. 6 + 9 = 15 | 9. 3 + 6 = 9 | 10. 4 + 3 = 7 |
| 11. 6 + 4 = 10 | 12. 5 + 7 = 12 | 13. 7 + 9 = 16 | 14. 4 + 4 = 8 | 15. 8 + 2 = 10 |

| | | | |
|---|---|---|---|
| 16. 9 + 8 = 17 | 17. 2 + 7 = 9 | 18. 5 + 5 = 10 | 19. 8 + 1 = 9 |
| 20. 5 + 8 = 13 | 21. 8 + 4 = 12 | 22. 4 + 9 = 13 | 23. 1 + 5 = 6 |
| 24. 9 + 9 = 18 | 25. 5 + 9 = 14 | 26. 7 + 0 = 7 | 27. 6 + 6 = 12 |

---

## Skills Review -- Subtraction Facts

Subtract.

| | | | | |
|---|---|---|---|---|
| 1. 16 − 7 = 9 | 2. 13 − 6 = 7 | 3. 13 − 9 = 4 | 4. 11 − 3 = 8 | 5. 6 − 2 = 4 |
| 6. 8 − 3 = 5 | 7. 14 − 8 = 6 | 8. 12 − 4 = 8 | 9. 9 − 1 = 8 | 10. 3 − 0 = 3 |
| 11. 12 − 5 = 7 | 12. 10 − 2 = 8 | 13. 15 − 7 = 8 | 14. 12 − 6 = 6 | 15. 9 − 4 = 5 |

| | | | |
|---|---|---|---|
| 16. 11 − 9 = 2 | 17. 14 − 7 = 7 | 18. 8 − 4 = 4 | 19. 14 − 5 = 9 |
| 20. 9 − 2 = 7 | 21. 7 − 1 = 6 | 22. 17 − 8 = 9 | 23. 12 − 9 = 3 |
| 24. 11 − 5 = 6 | 25. 9 − 6 = 3 | 26. 10 − 6 = 4 | 27. 15 − 6 = 9 |

NAME

## Skills Review -- Multiplication Facts

Multiply.

| | | | | |
|---|---|---|---|---|
| 1. 6 × 8 = 48 | 2. 9 × 3 = 27 | 3. 4 × 6 = 24 | 4. 4 × 0 = 0 | 5. 4 × 8 = 32 |
| 6. 5 × 7 = 35 | 7. 7 × 9 = 63 | 8. 7 × 8 = 56 | 9. 7 × 7 = 49 | 10. 2 × 2 = 4 |
| 11. 3 × 6 = 18 | 12. 9 × 4 = 36 | 13. 5 × 2 = 10 | 14. 5 × 8 = 40 | 15. 7 × 3 = 21 |

| | | | |
|---|---|---|---|
| 16. 4 x 3 12 | 17. 9 x 9 81 | 18. 9 x 8 72 | 19. 2 x 8 16 |
| 20. 3 x 8 24 | 21. 6 x 5 30 | 22. 1 x 4 4 | 23. 7 x 6 42 |
| 24. 5 x 5 25 | 25. 4 x 7 28 | 26. 8 x 8 64 | 27. 1 x 9 9 |

## Skills Review -- Mixed Operations

Perform the indicated operation.

| | | | | |
|---|---|---|---|---|
| 1. 9 + 1 = 10 | 2. 10 − 3 = 7 | 3. 9 × 2 = 18 | 4. 6 × 6 = 36 | 5. 8 − 6 = 2 |
| 6. 3 + 5 = 8 | 7. 17 − 9 = 8 | 8. 6 + 6 = 12 | 9. 9 × 5 = 45 | 10. 15 − 8 = 7 |
| 11. 2 + 6 = 8 | 12. 7 × 1 = 7 | 13. 11 − 7 = 4 | 14. 8 + 8 = 16 | 15. 9 × 6 = 54 |

| | | | |
|---|---|---|---|
| 16. 0 x 5 0 | 17. 12 − 7 5 | 18. 12 − 3 9 | 19. 4 + 7 11 |
| 20. 9 + 2 11 | 21. 2 x 7 14 | 22. 8 x 3 24 | 23. 5 + 4 9 |
| 24. 13 − 5 8 | 25. 7 + 6 13 | 26. 18 − 9 9 | 27. 8 x 5 40 |

NAME

SPM5/U2/16

## Basic Addition Facts

Write the six sums for each row.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. | 8 + 5 13 | 5 + 4 9 | 8 + 3 11 | 9 + 7 16 | 5 + 8 13 | 7 + 6 13 |
| 2. | 4 + 7 11 | 7 + 5 12 | 6 + 5 11 | 3 + 8 11 | 2 + 6 8 | 6 + 4 10 |
| 3. | 7 + 7 14 | 8 + 8 16 | 5 + 2 7 | 6 + 6 12 | 9 + 5 14 | 9 + 4 13 |
| 4. | 5 + 6 11 | 7 + 3 10 | 4 + 5 9 | 3 + 1 4 | 7 + 8 15 | 6 + 0 6 |
| 5. | 8 + 0 8 | 8 + 7 15 | 6 + 9 15 | 2 + 8 10 | 9 + 9 18 | 5 + 4 9 |
| 6. | 7 + 1 8 | 4 + 9 13 | 5 + 7 12 | 2 + 2 4 | 4 + 6 10 | 6 + 2 8 |
| 7. | 4 + 4 8 | 7 + 4 11 | 8 + 6 14 | 5 + 0 5 | 8 + 4 12 | 9 + 8 17 |
| 8. | 6 + 7 13 | 5 + 9 14 | 8 + 9 17 | 2 + 3 5 | 7 + 2 9 | 9 + 3 12 |
| 9. | 3 + 9 12 | 8 + 1 9 | 2 + 7 9 | 3 + 4 7 | 3 + 7 10 | 6 + 8 14 |
| 10. | 2 + 9 11 | 4 + 8 12 | 5 + 5 10 | 7 + 9 16 | 9 + 2 11 | 9 + 6 15 |

SPM5/U2/17

## Addition with No Regrouping

Add.

| | | | |
|---|---|---|---|
| 1. 31 650<br>45 029<br>76 679 | 2. 7130<br>2167<br>9297 | 3. 22 139<br>34 750<br>56 889 | 4. 2385 + 6410 8795 |

| | | | | |
|---|---|---|---|---|
| 5. 6325<br>2102<br>8427 | 6. 51<br>37<br>88 | 7. 42 313<br>12 302<br>54 615 | 8. 482<br>116<br>598 | 9. 1703<br>4125<br>5828 |
| 10. 424<br>453<br>877 | 11. 6024<br>3374<br>9398 | 12. 10 562<br>68 137<br>78 699 | 13. 25<br>70<br>95 | 14. 81 503<br>2363<br>83 866 |

15. 750 243 + 48 350 798 593

16. 1 704 + 63 012 64 716

17. 525 701 + 64 248 589 949

NAME



## Adding Four-Digit Numbers with Regrouping

Add.

| | | | |
|---|---|---|---|
| 1. 1589 + 7943 = 9532 | 2. 1385 + 2588 = 3973 | 3. 6479 + 2634 = 9113 | 4. 5529 + 681 = 6210 |

| | | | | |
|---|---|---|---|---|
| 5. 4757 + 1429 = 6186 | 6. 6265 + 471 = 6736 | 7. 2649 + 508 = 3157 | 8. 2836 + 5924 = 8760 | 9. 3543 + 1579 = 5122 |
| 10. 3279 + 359 = 3638 | 11. 4532 + 2476 = 7008 | 12. 5642 + 3689 = 9331 | 13. 7738 + 826 = 8564 | 14. 4679 + 3467 = 8146 |

15. 8056 + 978 = 9034

16. 2983 + 2254 = 5237

17. 1891 + 363 = 2254

## Practice

Solve. Show your work.

1. 281 people attended the play Friday. 413 people attended the play Saturday. How many attended in all? 694

2. Two elementary schools enrolled 329 and 268 students. How many were there enrolled in all? 597

3. 3875 persons signed a petition for the project. 2966 signed a petition against the project. In all, how many signed a petition? 6841

4. The moving van picked up a load of 3578 kg at the Guerra's apartment and a load of4558 kg at the Moro's apartment. How heavy were the two loads? 8136 kg

5. The Barrows drove 746 km in Alberta and 518 km in Saskatchewan during their vacation. How far did they drive in the two provinces? 1264 km

6. The park officers counted 682 buffalo in the east herd and 719 in the west herd. How many buffalo are there in all? 1401

NAME

SPM5/U2/20-21

## Addition with Regrouping

Add.

1. 1 1 1
   26 739
   45 438
   72 177

2. 1 2 1
   1 789
   30 763
   11 254
   43806

3. 39 658
   52 672
   92 330

4. 33 921
   849
   9 207
   43 977

5. 18 167
   6 229
   25 343
   49 739

6. 47 792
   65 864
   113 656

7. 35 068
   6 497
   41 565

8. 36 485
   16 763
   53 248

9. 62 698
   53 441
   116 139

10. 4 231
    39 679
    857
    44 767

11. 4849
    1321
    2923
    9093

12. 594
    2820
    814
    4228

13. 58 928 + 73 657 132 585

14. 75 691 + 50 423 + 61 745 187 859

---

SPM5/U2/24-25

## Estimating the Sum

Round and add to estimate each sum. Then find the exact sum.

1. Estimate first.
   1 1 2 1
   6741 7 000
   25 092 25 000
   13 578 14 000
   45 411 46 000
   Then add.

2. Estimate first.
   2748 3000
   1937 2000
   2467 2000
   7152 7000
   Then add.

3. 28 208 30 000
   32 708 30 000
   16 182 20 000
   77 098 80 000

4. 24 720 20 000
   26 364 30 000
   51 084 50 000

5. 4586 5000
   9220 9000
   2367 2000
   16 173 16000

6. 9798 10 000
   42 330 40000
   13 425 10 000
   65 553 60000

7. 4025 4000
   6771 7000
   4100 4000
   14896 15000

8. 7678 8000
   3589 4000
   2134 2000
   6456 6000
   19 857 20000

NAME _____

## Practice

Add.

1. 21 042 + 6 791 = 27 833

2. 6872 + 1028 = 7900

3. $14.96 + 37.51 = $52.47

4. $831 + 419 = $1250

5. 17 832 + 50 946 = 68 778

6. 3596 + 917 + 3956 = 8469

7. 463 + 880 + 78 = 1421

8. 26 868 + 29 593 + 89 475 = 145 936

9. 4 829 + 17 437 + 657 = 22 923

10. $ 5.27 + 46.47 + 9.48 = $61.22

11. 4213 + 861 = 5074

12. $37.85 + $23.16 = $61.01

13. 47 102 + 8 639 = 55 741

14. $11.15 + $73.46 = $84.61

15. 874 + 296 = 1170

16. 47 508 + 552 + 6 461 = 54 521

Solve. Show your work.

17. Billy's 3 books have 1134 pages. Bo's 4 books have 891 pages. What is the total number of pages in their books? 2025

18. The Kleins went shopping. Mrs. Klein spent $37.48. Mr. Klein spent $48.67. Together, how much did they spend? $86.15

19. 7519 people were in the stadium at game time. Another 1351 arrived after the game began. What was the total attendance? 8870

20. Advance ticket sales were worth $47 381. Ticket sales on the day of the game were worth $13 496. What was the total of the ticket sales? $60 877

21. When the Hamilton football team played at Toronto, 45 875 fans attended. 28 850 fans came to the Toronto game at Hamilton. What was the total attendance for both games? 74 725

22. Pierce spent $7.48 for a first-aid kit and $4.75 for extra bandages. What did these supplies cost in all? $12.23

NAME

SPM5/U2/27

## Addition and Subtraction Families

Write the complete families.

| | | | |
|---|---|---|---|
| 1. 8 + 6 = 14<br>6 + 8 = 14<br>14 − 6 = 8<br>14 − 8 = 6 | 2. 12 − 3 = 9<br>12 − 9 = 3<br>9 + 3 = 12<br>3 + 9 = 12 | 3. 5 + 6 = 11<br>6 + 5 = 11<br>11 − 6 = 5<br>11 − 5 = 6 | 4. 12 − 7 = 5<br>12 − 5 = 7<br>7 + 5 = 12<br>5 + 7 = 12 |

| | | | |
|---|---|---|---|
| 5. 7 + 7 = 14<br>14 − 7 = 7 | 6. 6 + 7 = 13<br>7 + 6 = 13<br>13 − 7 = 6<br>13 − 6 = 7 | 7. 14 − 5 = 9<br>14 − 9 = 5<br>9 + 5 = 14<br>5 + 9 = 14 | 8. 11 − 9 = 2<br>11 − 2 = 9<br>9 + 2 = 11<br>2 + 9 = 11 |
| 9. 9 + 6 = 15<br>6 + 9 = 15<br>15 − 6 = 9<br>15 − 9 = 6 | 10. 5 + 5 = 10<br>10 − 5 = 5 | 11. 7 + 8 = 15<br>8 + 7 = 15<br>15 − 8 = 7<br>15 − 7 = 8 | 12. 13 − 8 = 5<br>13 − 5 = 8<br>8 + 5 = 13<br>5 + 8 = 13 |

SPM5/U2/28

## Subtraction With No Regrouping

Subtract.

| | | | |
|---|---|---|---|
| 1. 9497<br>6273<br>3224 | 2. 6386<br>6254<br>132 | 3. 8456<br>2053<br>6403 | 4. 7503 − 7201 302 |

| | | | | |
|---|---|---|---|---|
| 5. 9435<br>1124<br>8311 | 6. 3786<br>3541<br>245 | 7. 7864<br>4263<br>3601 | 8. 8525<br>8322<br>203 | 9. 5587<br>3575<br>2012 |
| 10. 1878<br>1163<br>715 | 11. 7874<br>1644<br>6230 | 12. 6759<br>6216<br>543 | 13. 9638<br>1316<br>8322 | 14. 2985<br>2382<br>603 |

15. 9596 − 5322 4274

16. 3967 − 3647 320

17. 7829 − 7518 311

NAME



## Subtraction With Regrouping

Subtract.

| | | | |
|---|---|---|---|
| 1. 8432<br>976<br>7456 | 2. 7765<br>2968<br>4797 | 3. 9730<br>5926<br>3804 | 4. 418 − 342 76 |

| | | | | |
|---|---|---|---|---|
| 5. 7219<br>4792<br>2427 | 6. 821<br>568<br>253 | 7. 4482<br>3229<br>1253 | 8. 619<br>234<br>385 | 9. 7258<br>3431<br>3827 |
| 10. 6081<br>1445<br>4636 | 11. 9743<br>6178<br>3565 | 12. 8928<br>3754<br>5174 | 13. 61 140<br>52 567<br>8573 | 14. 7480<br>5813<br>1667 |

15. 9286 − 7863 1423

16. 1854 − 879 975

17. 8317 − 6327 1990

## Practice

Solve. Show your work.

1. 7349 passengers passed through the Edmonton airport this week. 5894 passed through last week. How many more passed through the Edmonton airport this week? 1455

2. The stadium office had requests for 42 585 tickets to the championship football game. The stadium seats only 38 600. How many ticket requests was the office unable to honor? 3985

3. The Goodfellow A Mine produced 83 470 t of coal this month. The Goodfellow B Mine produced 75 800 t. What was the total produced by the two Goodfellow mines? 159 270 t

4. Vista Campground opened this week on Hill Road. Last week a traffic count showed 672 cars on the road. This week the count was 843 cars. How many more cars used the road this week? 171

NAME

SPM5/U2/32-33

## Subtraction, Regrouping with Zeros

Subtract.

| | | | |
|---|---|---|---|
| 1. 2991 10<br>3000<br>1152<br>1848 | 2. 19 13<br>8203<br>2429<br>5774 | 3. 5040<br>2854<br>2186 | 4. 9000 − 5678<br>3322 |

| | | | | |
|---|---|---|---|---|
| 5. 8000<br>3257<br>4743 | 6. 70 703<br>46 235<br>24 468 | 7. 5004<br>1457<br>3547 | 8. 20 907<br>11 265<br>9 642 | 9. 6000<br>4461<br>1539 |
| 10. 40 090<br>35 329<br>4761 | 11. 60 008<br>53 486<br>6522 | 12. 20 000<br>13 187<br>6813 | 13. 96 000<br>52 687<br>43 313 | 14. 7008<br>3221<br>3787 |

15. 20 403 − 9826 = 10 577

16. 80 000 − 63 075 = 16 925

17. 58 000 − 49 813 = 8187

SPM5/U2/36-37

## Estimating the Difference

Round and subtract to estimate each difference.
Then find the exact difference.

| | | | |
|---|---|---|---|
| 1. 17 7715510<br>8856Ø — 90 000<br>49 948 — 50 000<br>38 612 — 40 000<br>Estimate first. Then subtract. | 2. 5587 — 6000<br>3799 — 4000<br>1788 — 2000<br>Estimate first. Then subtract. | 3. 32 086 — 30 000<br>9 367 — 10 000<br>22 719 — 20 000 | 4. 4682 — 5000<br>2668 — 3000<br>2014 — 2000 |

| | | | |
|---|---|---|---|
| 5. 78 984 — 80 000<br>36 157 — 40 000<br>42 827 — 40 000 | 6. 5383 — 5000<br>4279 — 4000<br>1104 — 1000 | 7. 9723 — 10 000<br>3518 — 4000<br>6205 — 6000 | 8. 77 678 — 80 000<br>51 489 — 50 000<br>26 189 — 30 000 |
| 9. 32 097 — 30 000<br>14 235 — 10 000<br>17 862 — 20 000 | 10. 4982 — 5000<br>3884 — 4000<br>1098 — 1000 | 11. 78 650 — 80 000<br>69 792 — 70 000<br>8858 — 10 000 | 12. 75 966 — 80 000<br>56 282 — 60 000<br>19 684 — 20 000 |

NAME _____

## Practice

Perform the indicated operation.

1. $\begin{array}{r} 8 \\ +\ 9 \\ \hline 17 \end{array}$

2. $\begin{array}{r} 7362 \\ -\ 1043 \\ \hline 6319 \end{array}$

3. $\begin{array}{r} 402 \\ -\ 197 \\ \hline 205 \end{array}$

4. $\begin{array}{r} 235 \\ +\ 461 \\ \hline 696 \end{array}$

5. $\begin{array}{r} \$42.38 \\ +\ 50.45 \\ \hline \$92.83 \end{array}$

6. $\begin{array}{r} 16 \\ -9 \\ \hline 7 \end{array}$

7. $\begin{array}{r} 87\,243 \\ -\ 49\,638 \\ \hline 37\,605 \end{array}$

8. $\begin{array}{r} \$274.05 \\ +\ 398.61 \\ \hline \$672.66 \end{array}$

9. $\begin{array}{r} 217 \\ +\ 90 \\ \hline 307 \end{array}$

10. $\begin{array}{r} 4821 \\ +\ 729 \\ \hline 5550 \end{array}$

11. $\$18.63 + \$7.47$ $\$26.10$

12. $8493 - 736$ $7757$

13. $20\,316 + 59\,874$ $80\,190$

14. $\$20.04 - \$16.95$ $\$3.09$

15. $10\,000 - 5681$ $4319$

16. $\$250.00 - \$189.98$ $\$60.02$

Solve. Show your work.

17. Mount Everest is 8848 m high. Mount Logan is 6050 m high. How much higher is Mount Everest? $2798$ m

18. Nova Scotia has 55 490 km$^2$. New Brunswick has 73 437 km$^2$. What is their total area? $128\,927$ km$^2$

19. The area of British Columbia is 948 596 km$^2$. Alberta has 661 185 km$^2$. How much larger is British Columbia? $287\,411$ km$^2$

20. In the fund drive the fifth graders earned \$113.86 the first week and \$97.29 the second. How much more did they earn the first week? $\$16.57$

21. A mountain climber reached a point 1865 m below the peak on the first day. The climber was 1070 m below the peak after the second day. How far upwards did the climber go on the second day? $795$ m

22. Publishing a newspaper cost the sixth-grade class \$27.86 the first time and \$14.09 the second time. What did the two editions cost in all? $\$41.95$

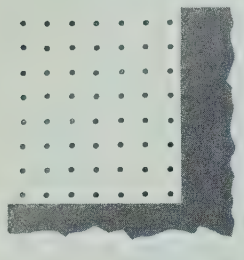
NAME

SPM5/U3/42-43

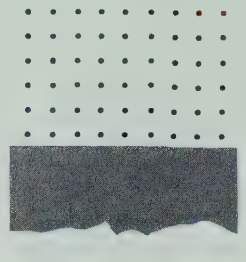
## Basic Facts

Multiply.

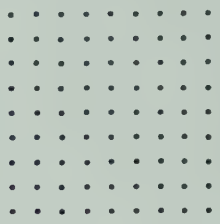
1. 8 x 7 56



2. 6 x 9 54



Cover as needed to help you find the products.



| | | | |
|---|---|---|---|
| 3. 4 x 3 12 | 4. 5 x 6 30 | 5. 9 x 8 72 | 6. 8 x 4 32 |
| 7. 6 x 7 42 | 8. 7 x 5 35 | 9. 4 x 6 24 | 10. 9 x 5 45 |
| 11. 8 x 8 64 | 12. 7 x 3 21 | 13. 5 x 8 40 | 14. 7 x 7 49 |
| 15. 7 x 9 56 | 16. 9 x 9 81 | 17. 8 x 6 48 | 18. 5 x 5 25 |

SPM5/U3/44-45

## Multiplying a Two-Digit Number by a One-Digit Number

Multiply.

| | | | |
|---|---|---|---|
| 1. 34 x 6 = 204 | 2. 93 x 4 = 372 | 3. 46 x 3 = 138 | 4. 8 x 59 472 |
| 5. 56 x 2 = 112 | 6. 74 x 5 = 370 | 7. 38 x 7 = 266 | 8. 85 x 3 = 255 |
| 9. 67 x 4 = 268 | 10. 48 x 8 = 384 | 11. 67 x 6 = 402 | 12. 99 x 2 = 198 |
| 13. 73 x 9 = 657 | 14. 59 x 5 = 295 | 15. 4 x 58 232 | 16. 8 x 63 504 |
| 17. 9 x 85 765 | 18. 7 x 76 532 | | |

NAME

SPM5/U3/46-47

## Multiplying by a One-Digit Number

Multiply.

| | | | |
|---|---|---|---|
| 33<br>1. 467<br>5<br>2335 | 45<br>2. 258<br>7<br>1806 | 3. 157<br>6<br>942 | 4. 4 x 6248<br>24 992 |

| | | | | |
|---|---|---|---|---|
| 5. 98<br>6<br>588 | 6. 47<br>8<br>376 | 7. 79<br>7<br>553 | 8. 156<br>9<br>1404 | 9. 219<br>5<br>1095 |
| 10. 478<br>9<br>4302 | 11. 509<br>8<br>4072 | 12. 3579<br>2<br>7158 | 13. 4096<br>6<br>24 576 | 14. 71 359<br>4<br>285 436 |

15. 7 x 1634
11 438

16. 8 x 386
3088

17. 3 x 91 837
275 511

SPM5/U3/50-51

## Multiplying by Multiples of 10, 100, and 1000

Multiply.

| | | | |
|---|---|---|---|
| 22<br>1. 157<br>400<br>62 800 | 1<br>2. 246<br>30<br>7380 | 3. 109<br>70<br>7630 | 4. 900 x 54<br>48 600 |

| | | | | |
|---|---|---|---|---|
| 5. 78<br>50<br>3900 | 6. 346<br>70<br>24 220 | 7. 976<br>200<br>195 200 | 8. 120<br>80<br>9600 | 9. 357<br>600<br>214 200 |
| 10. 375<br>800<br>300 000 | 11. 725<br>70<br>50 750 | 12. 793<br>900<br>713 700 | 13. 498<br>60<br>29 880 | 14. 182<br>50<br>9100 |

15. 3000 x 189
567 000

16. 2000 x 285
570 000

17. 4000 x 304
1 216 000

NAME _____

## Practice

Perform the indicated operation.

1. $4283 + 3759 = 8042$
2. $7 \times 5 = 35$
3. $\$8.03 - 5.38 = \$2.65$
4. $249 \times 3 = 747$
5. $42\,316 - 9\,427 = 32\,889$
6. $27 \times 6 = 162$
7. $23\,874 + 56\,109 = 79\,983$
8. $2003 - 425 = 1578$
9. $3946 \times 5 = 19730$
10. $\$18.73 + 9.27 = \$28.00$
11. $23\,460 + 18\,961 = 42\,421$
12. $6 \times 2741 = 16\,446$
13. $\$11.75 - \$5.03 = \$6.72$
14. $70 \times 8 = 560$
15. $600 \times 491 = 294\,600$
16. $2437 + 816 = 3253$
17. $2491 - 127 = 2364$
18. $90 \times 80 = 7200$
19. $20 \times 1428 = 28\,560$

Solve. Show your work.

20. The Montreal Forum holds 18 350 people. What can the attendance be for a 3-game series there? 55 050

21. Mr. Gardner set out 7 rows of tomato plants with 19 plants in each row. How many plants did he set out? 133

22. 878 people filled the school auditorium for the meeting. Another 237 watched on television in the gym. Altogether, how many people saw the meeting? 1115

23. For their holiday trip, the Leroi's paid $656 in advance reservations and another $728 during the trip. What was the total cost of their trip? $1384

24. Some school buses hold 57 children. 7 of these buses brought full loads of children to the fair. How many children is this? 399

25. Mr. Travis decided to buy a jacket for $63.95 instead of a more expensive one selling for $72.50. How much did he save? $8.55

NAME

SPM5/U3/52-53

## Multiplying a Two-Digit Number by a Two-Digit Number

Multiply. Change the order of the factors to check your work.

| | | | |
|---|---|---|---|
| 1. 53 × 27 = 1431 (371 + 1060; 27 × 53 = 1431 (81 + 1350)) | 2. 18 × 46 = 828 (108 + 720) | 3. 49 × 62 = 3038 | 4. 72 × 28 = 2016 |
| 5. 17 × 73 = 1241 | 6. 38 × 51 = 1938 | 7. 46 × 97 = 4462 | 8. 70 × 80 = 5600 |
| 9. 63 × 24 = 1512 | 10. 52 × 46 = 2392 | 11. 46 × 87 = 4002 | 12. 67 × 16 = 1072 |

SPM5/U3/54-55

## Multiplying by a Two-Digit Number

Multiply.

| | | | | |
|---|---|---|---|---|
| 1. 263 × 54 = 14202 (1052 + 13150) | 2. 479 × 62 = 29698 (958 + 28740) | 3. 152 × 87 = 13224 | 4. 81 × 67 × 41 = 222 507 | |
| 5. 283 × 19 = 5377 | 6. 475 × 35 = 16625 | 7. 16 × 25 = 400 | 8. 263 × 66 = 17358 | 9. 4449 × 48 = 213552 |
| 10. 78 × 25 × 29 = 56550 (Use other paper for Exercises 10 - 12.) | 11. 75 × 93 × 48 = 334 800 | 12. 63 × 60 × 45 = 170 100 | | |

NAME

SPM5/U3/56-57

## Multiplying by a Three-Digit Number

Multiply.

| | | | |
|---|---|---|---|
| 1. 272<br>296<br>1632<br>24480<br>54400<br>80512 | 2. 632<br>345<br>3160<br>25280<br>189600<br>218040 | 3. 385<br>891<br>343035 | 4. 57 x 843 x 91<br>4 372 641 |

| | | | | |
|---|---|---|---|---|
| 5. 371<br>526<br>195146 | 6. 447<br>713<br>318711 | 7. 4268<br>914<br>3900952 | 8. 2004<br>562<br>1126248 | 9. 5234<br>197<br>1031098 |

10. 443 x 5038
2 231 834

11. 80 x 23 x 8358
15 378 720

12. 353 x 711
250983

SPM5/U3/60

## Estimating the Product

Round and multiply to estimate the product. Then find the exact product.

| | | | |
|---|---|---|---|
| 1. 346 300<br>28 30<br>2768 9000<br>6920<br>9688<br>Estimate, then multiply. | 2. 563 600<br>37 40<br>3941 24000<br>16890<br>20831 | 3. 713 700<br>37 40<br>26381 28000 | 4. 57 x 284 300<br>16188 60<br>18000 |

| | | | | |
|---|---|---|---|---|
| 5. 23 20<br>89 90<br>2047 1800 | 6. 638 600<br>44 40<br>28072 24000 | 7. 271 300<br>627 600<br>169917 180000 | 8. 8106 8000<br>93 90<br>753858 720000 |

| | | | | | |
|---|---|---|---|---|---|
| 9. 67 x 612 | 600<br>70 | 10. 153 x 903 | 900<br>200 | 11. 78 x 4521 | 5000<br>80 |
| 41004 | 42000 | 138159 | 180000 | 352638 | 400000 |

NAME _____

## Practice

Perform the indicated operation.

1. $83 \times 27$ — 2241
2. $27\,041 - 9\,273$ — 17 768
3. $600 \times 45$ — 27 000
4. $\$15.24 + 4.83$ — $20.07
5. $485 \times 291$ — 141 135
6. $3007 - 428$ — 2579
7. $113\,086 + 98\,753$ — 211 839
8. $4231 \times 80$ — 338 480
9. $\$87.15 - 29.35$ — $57.80
10. $\$2748 + 9602$ — $12350
11. $3000 \times 17$ — 51 000
12. $\$27\,042 - \$16\,481$ — $10 561
13. $7086 + 2430$ — 9516
14. $7 \times 9 \times 86$ — 5418
15. $82\,095 - 14\,615$ — 67 480
16. $48 \times 51 \times 34$ — 83 232

Solve. Show your work.

17. There are 60 s in a minute and 60 min in an hour. How many seconds are there in a 24-h day? 86 400

18. $838 worth of seats were sold for the play. It cost $475 to produce the play. How much profit was made? $ 363

19. The lunch crew prepares 1375 meals each work day. How many meals does it prepare in one year (250 work days)? 343 750

20. One post office reported handling 123 960 pieces of mail in August and 241 702 in September. What was its 2-month total? 365 662

21. Each of 47 boys carries 5 pieces of firewood. Each piece of firewood has a mass of 3 kg. What is the total mass of the wood carried? 705 kg

22. The distance from Edmonton to Thunder Bay by train is 1953 km. It is 1887 km by train to Churchill. How much farther is it to Thunder Bay? 66 km

NAME

SPM5/U4/64-65

## Collecting Information

Draw a survey chart you could use. Answers will vary.

1. to find out a favorite flavor of ice cream.

Complete the list.

| What is your favorite flavor of ice cream? | | Total |
|---|---|---|
| vanilla | | |
| chocolate | | |
| | | |
| | | |
| | | |
| | | |

2. to find out which kind of automobile people like to drive. Answers will vary.

| What kind of car do you like to drive? |
|---|
| |

3. Try some of the exercises on page 65 of your textbook again. Ask your teacher to help you select some.

SPM5/U4/66-67

## Organizing Information

Paul asked, "What is your favorite subject in school?"
He made this chart.

| What is your favorite subject? | Girls | Boys |
|---|---|---|
| Reading | 𝍸 𝍸 \| | 𝍸 |
| Language | 𝍸 | 𝍸 |
| Mathematics | 𝍸 | 𝍸 \|\| |
| Science | 𝍸 𝍸 | 𝍸 \| |
| Music | 𝍸 | 𝍸 |
| Art | 𝍸 | 𝍸 |
| Physical Education | 𝍸 | 𝍸 \| |

Use Paul's chart to answer these questions.

1. How many boys like science best? 6
2. How many girls like art best? 5
3. How many students like mathematics best? 12
4. What is the favorite subject of the girls? Reading
5. What is the favorite subject of the boys? Mathematics
6. What is the favorite subject of the students? Science
7. How many girls were surveyed? 40
8. How many students were surveyed? 74

NAME



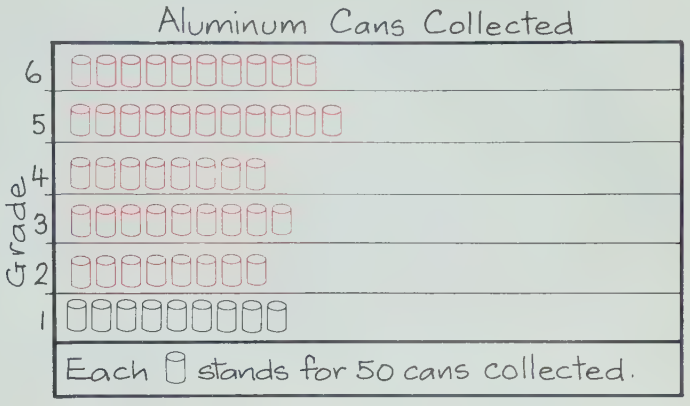
## Pictographs and Bar Graphs

Complete the pictograph to show the following information.

The first line in each graph has been done.

**Recycling Drive**

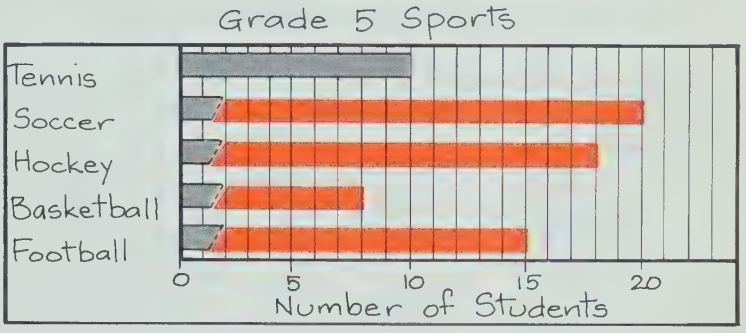
| | Grade | Aluminum Cans Collected |
|---|---|---|
| 1. | 1 | 450 |
| | 2 | 400 |
| | 3 | 450 |
| | 4 | 400 |
| | 5 | 550 |
| | 6 | 500 |



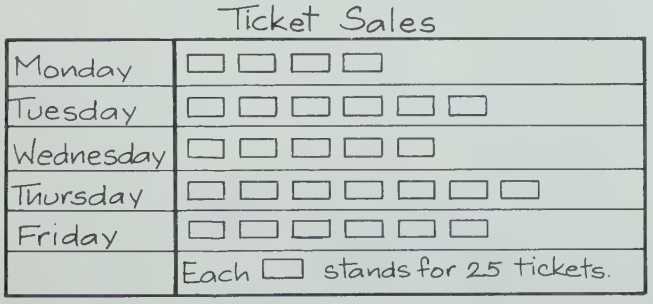

Complete the bar graph and show the following information.

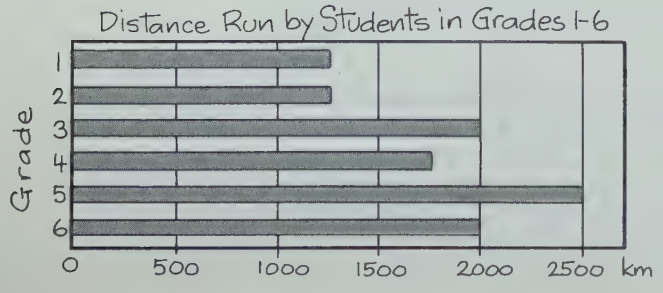
**Grade 5 Sports**

| | Sport | Students |
|---|---|---|
| 2. | Tennis | 10 |
| | Soccer | 20 |
| | Hockey | 18 |
| | Basketball | 8 |
| | Football | 15 |




Use the following graphs to answer the questions.

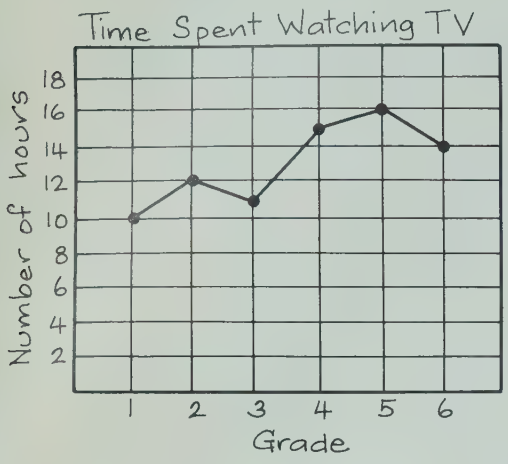



3. On which day were the most tickets sold? Thursday
4. On which day were the fewest tickets sold? Monday
5. On which days were the same number of tickets sold? Tuesday, Friday
6. How many more tickets were sold on Thursday than on Wednesday? 50
7. How many tickets were sold in all? 700
8. Which grade ran the greatest distance? Grade 5
9. Which grades ran the same distance? Grade 1 and 2; Grade 3 and 6
10. Which grade ran farther, Grade 3 or Grade 4? How much farther? Grade 3; 250 km

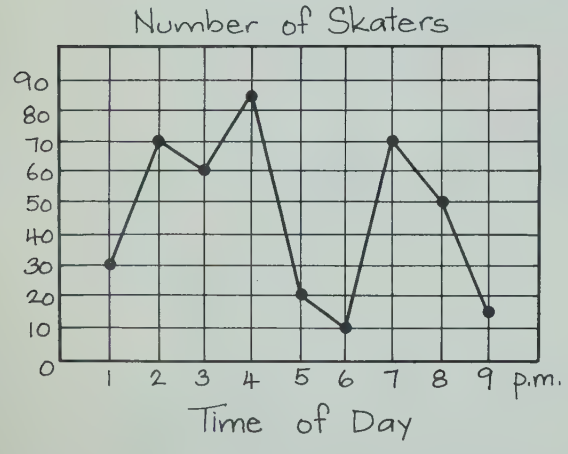
## Reading Line Graphs

Harley made a survey on the time a student spends watching television each week. Use the graph to answer the questions.



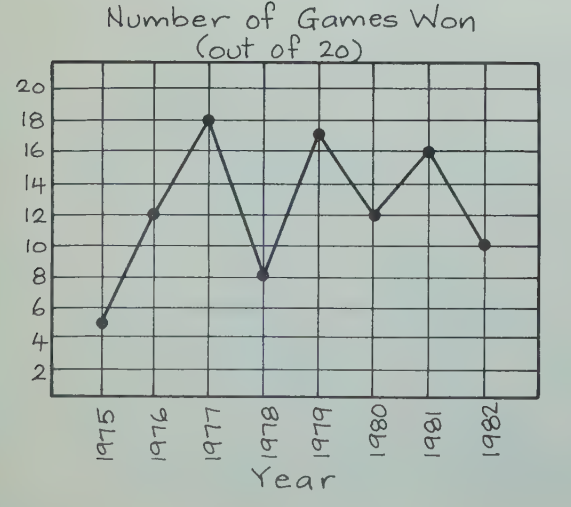

1. In which grade did a student spend the most time watching TV? Grade 5
2. Between which grades did the amount of time spent increase the most? Grade 3 and 4
3. Between which grades did the amount of time decrease? Grade 2 and 3; Grade 5 and 6
4. Between which grades did the amount of time change the least? Grade 2 and 3; Grade 4 and 5
5. Was more time spent in Grade 4 or in Grade 6? How much more? Grade 4; 1h

Joanna's line graph shows the number of skaters using a roller rink.




6. When was the rink in use by the fewest number of skaters? 6 p.m.
7. Between which times did the number of skaters increase the most? 6 p.m. and 7 p.m.
8. Between which times did the number of skaters decrease by the same amount? 2 p.m. and 3 p.m.; 5 p.m. and 6 p.m.
9. Between which times did the number of skaters change the most? 4 p.m. and 5 p.m.
10. At which times were the same number of skaters using the rink? 2 p.m. and 7 p.m.

The basketball team plays 20 games each year.




11. In which year were the greatest number of games won? 1977
12. Between which two years did the team's record improve the most? 1978 and 1979
13. Between which two years did the team's record change the most? 1977 and 1978
14. In which years did the team win the same number of games? 1976 and 1980
15. In which year did the team lose the most games? How many games did it lose that year? 1975 15

NAME _____

## Practice

This chart shows the ages of the club's members.

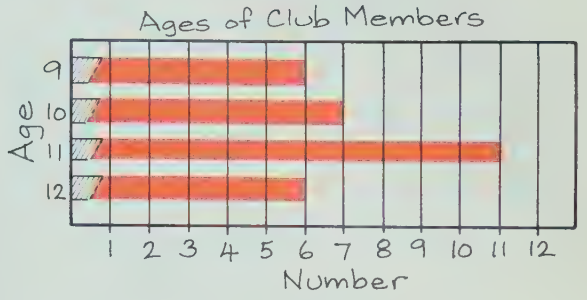
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 9 | 10 | 11 | 11 | 12 | 10 | 12 | 11 | 9 | 9 |
| 12 | 11 | 10 | 9 | 11 | 12 | 11 | 11 | 10 | 12 |
| 11 | 11 | 11 | 10 | 12 | 9 | 10 | 11 | 9 | 10 |

Complete this tally chart.

| | Age | Number |
|---|---|---|
| 1. | 9 | 𝍸 I |
| | 10 | 𝍸 II |
| | 11 | 𝍸 𝍸 I |
| | 12 | 𝍸 I |

Draw a bar graph.

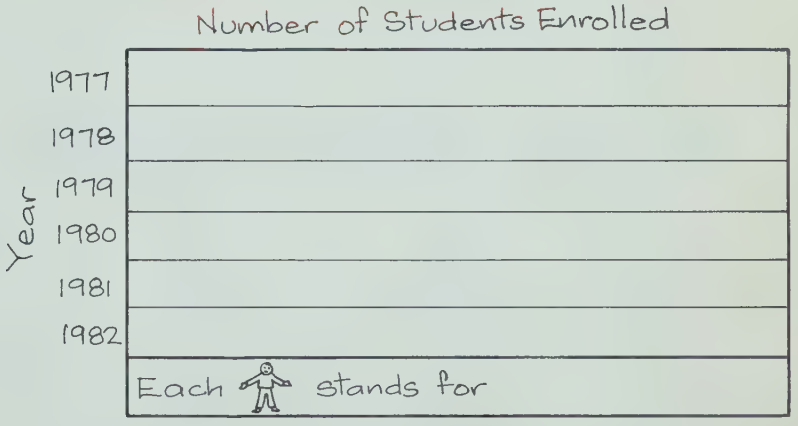
2.



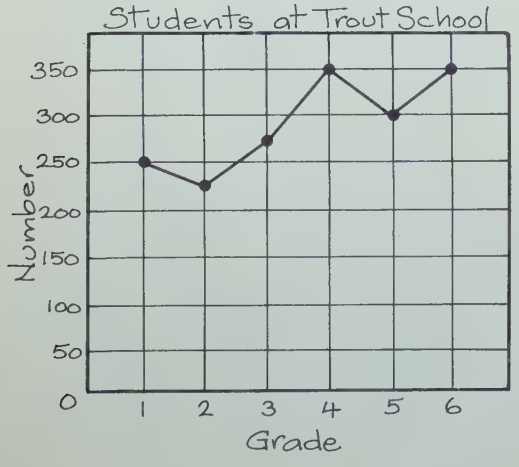

Complete the pictograph to show the following information.

| | Year | Number of Students Enrolled |
|---|---|---|
| 3. | 1977 | 2000 |
| | 1978 | 2400 |
| | 1979 | 2800 |
| | 1980 | 3200 |
| | 1981 | 3200 |
| | 1982 | 2800 |

Pictographs may vary.




This line graph shows the number of students in each grade at the Trout Elementary School




4. In which grade are there the fewest students? Grade 2

5. Between which grades does the number of students decrease?
Grade 1 and 2; Grade 4 and 5

6. Between which grades does the number of students increase the same amount?
Grade 2 and 3; Grade 5 and 6

7. Between which grades does the number of students change the most?
Grade 3 and 4

8. Which grades have the same number of students?
Grade 4 and 6

NAME

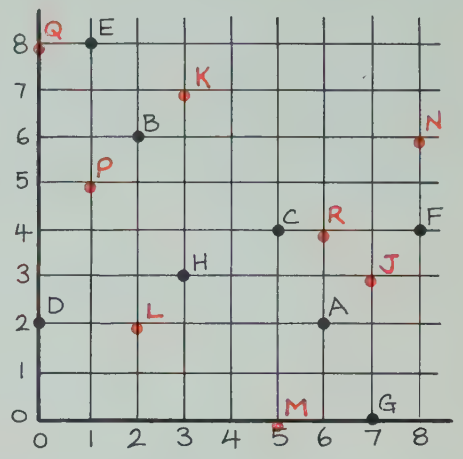
SPM5/U4/72-73

## Ordered Pairs of Numbers and Points on a Grid

Give the ordered pair of numbers that matches each point.

1. A (6,2) 2. B (2,6) 3. C (5,4) 4. D (0,2)

5. E (1,8) 6. F (8,4) 7. G (7,0) 8. H (3,3)




Plot each of these.

9. J(7, 3)
10. K(3, 7)
11. L(2, 2)
12. M(5, 0)
13. N(8, 6)
14. P(1, 5)
15. Q(0, 8)
16. R(6, 4)

SPM5/U4/74-75

## Drawing Line Graphs

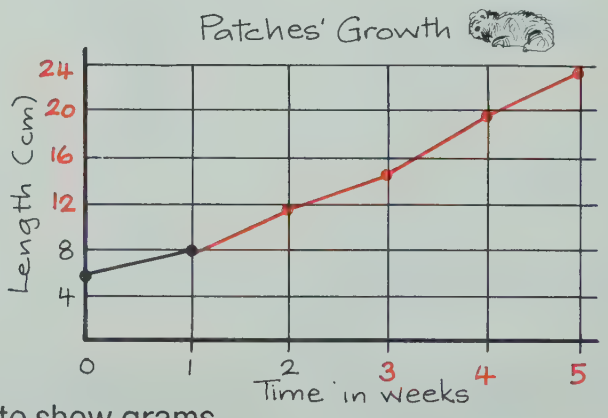
Draw a line graph for each.

1. Mark the horizontal number line to show weeks.
   Mark the vertical number line to show centimetres.

Part of the graph has been drawn.

**Patches' Growth**

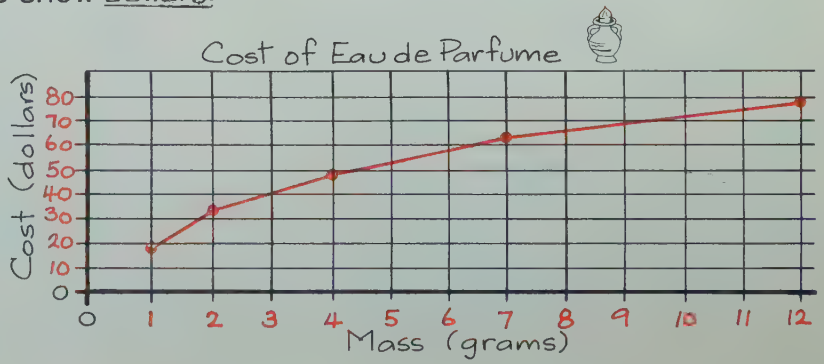
| Time (in weeks) | Length (in centimetres) |
|---|---|
| 0 | 6 |
| 1 | 8 |
| 2 | 12 |
| 3 | 15 |
| 4 | 20 |
| 5 | 24 |




2. Mark the horizontal number line to show grams.
   Mark the vertical number line to show dollars.

**Eau de Parfume**

| Mass (in grams) | Cost (in dollars) |
|---|---|
| 1 | 20 |
| 2 | 35 |
| 4 | 50 |
| 7 | 65 |
| 12 | 80 |



NAME _____

## Practice

Perform the indicated operation.

1. 2768 + 4935 = 7703

2. 300 x 6 = 1800

3. 4030 − 1647 = 2383

4. 278 x 14 = 3892

5. $7.39 − 0.86 = $6.53

6. $41.83 + 19.75 = $61.58

7. 714 x 125 = 89 250

8. 20 623 + 49 588 = 70 211

9. 128 x 300 = 38 400

10. 10 719 − 9 467 = 1252

11. 3 x 15 x 124 = 5580

12. 42 386 − 3 871 = 38 515

13. $4219 + $8081 = $ 12 300

14. 46 x 81 x 29 = 108 054

15. 4203 + 8116 = 12 319

16. 171 429 − 36 500 = 134 929

Solve. Show your work.

17. A department store paid $27 500 for newspaper advertising one week and $42 625 the next. What was the total it paid? $70 125

18. The city estimated that tolls on the bridge would average $2150 every day for the next 90 d. How much money would this be? $193 500

19. The well is estimated to provide 4375 L of water each day. How much water would this be in a week? 30 625 L

20. The farmer has 2 rolls of fencing. One has 333 m and the other 475 m. How much fencing is this? 808 m

21. Two airplanes pass each other. One is at 10 500 m. The other is at 7750 m. How much higher is the first airplane? 2750 m

22. Ian's birthday is 7 d away. How many minutes is this? 10 080 min

NAME

SPM5/U5/80-81

## Using Multiplication to Divide

Divide. Show the quotient and the remainder.

1. $6\overline{)26}$ → 4 R2; 24 (6 × 4); 2

2. $9\overline{)42}$ → 4 R6; 36 (9 × 4); 6

3. $7\overline{)26}$ → 3 R5

4. $8\overline{)45}$ → 5 R5

5. $4\overline{)30}$ → 7 R2

6. $2\overline{)15}$ → 7 R1

7. $9\overline{)67}$ → 7 R4

8. $6\overline{)52}$ → 8 R4

9. $8\overline{)73}$ → 9 R1

10. $4\overline{)19}$ → 4 R3

11. $3\overline{)17}$ → 5 R2

12. $7\overline{)61}$ → 8 R5

13. $5\overline{)49}$ → 9 R4

14. $2\overline{)13}$ → 6 R1

15. $6\overline{)37}$ → 6 R1

16. 25 ÷ 3 → 8 R1

17. 19 ÷ 8 → 2 R3

18. 27 ÷ 5 → 5 R2

## Practice

Solve. Show your work.

1. 1965 km of the Alaska Highway are in Canada. 486 km are in the United States. How much longer is the Canadian part of the highway? 1479 km

2. The tennis camp can accept 44 children each session. It plans to run 5 sessions this summer. How many children can attend? 220

3. Mark's mother and father both work. His father's income last year was $12 319.75. His mother's income was $13 417.75. What was their total income? $ 25 737.50

4. On their holiday trip, the Rosenberg's shot 24 rolls of film. There are 15.2 m of film on each roll. How much film did they use in all? 364.8 m

NAME

SPM5/U5/82-83

## Sharing Hundreds, Tens, and Ones

Divide.

1. 3)963

   1 } 321
   20 }
   300 }

   900 (3 x 300)
   63
   60 (3 x 20)
   3
   3 (3 x 1)
   0

2. 2)664

   2 } 332
   30 }
   300 }

   600 (2 x 300)
   64
   60
   4
   4
   0

3. 4)844 = 211

4. 2)244 = 122

5. 3)609 = 203

6. 2)280 = 140

7. 4)848 = 212

8. 6)666 = 111

9. 3)693 = 231

10. 2)864 = 432

SPM5/U5/84-85

## Regrouping Tens

Divide.

1. 3)52

   7 } 17 R1
   10 }

   30 (3 x 10)
   22
   21 (3 x 7)
   1

2. 4)96

   4 } 24
   20 }

   80 (4 x 20)
   16
   16
   0

3. 6)78 = 13

4. 5)65 = 13

5. 6)86 = 14 R2

6. 2)52 = 26

7. 3)58 = 19 R1

8. 5)79 = 15 R4

9. 4)72 = 18

10. 7)90 = 12 R6

NAME

SPM5/U5/86-87

## Regrouping Hundreds, Regrouping Tens

Divide.

1. $5\overline{)750}$

50 } 150
100 }
500 (5 x 100)
250
250 (5 x 50)
0

2. $7\overline{)450}$

4 } 64 R2
60 }
420 (7 x 60)
30
28
2

3. $6\overline{)294}$ = 49

4. $4\overline{)680}$ = 170

5. $8\overline{)655}$ = 81 R7

6. $3\overline{)735}$ = 245

7. $5\overline{)369}$ = 73 R4

8. $7\overline{)378}$ = 54

9. $2\overline{)930}$ = 465

10. $9\overline{)747}$ = 83

SPM5/U5/88-89

## Dividing by a One-Digit Number

Divide.

1. $4\overline{)1444}$

1 } 361
60 }
300 }
1 200 (4 x 300)
244
240 (4 x 60)
4
4 (4 x 1)
0

2. $3\overline{)1637}$

5 } 545 R2
40 }
500 }
1500 (3 x 500)
137
120
17
15
2

3. $7\overline{)5824}$ = 832

4. $5\overline{)4326}$ = 865 R1

5. $2\overline{)457}$ = 228 R1

6. $9\overline{)2154}$ = 239 R3

7. $6\overline{)9258}$ = 1543

8. $8\overline{)30\,127}$ = 3765 R7

NAME _____

## Practice

Perform the indicated operation.

1. $\begin{array}{r} 314\,209 \\ +\ 896\,477 \\ \hline 1\,210\,686 \end{array}$

2. $\begin{array}{r} 5246 \\ \times\ 78 \\ \hline 409\,188 \end{array}$

3. $6\overline{)54}$ = 9

4. $\begin{array}{r} 4013 \\ -1845 \\ \hline 2168 \end{array}$

5. $7\overline{)217}$ = 31

6. $\begin{array}{r} 943 \\ \times\ 27 \\ \hline 25\,461 \end{array}$

7. $\begin{array}{r} \$8146.79 \\ +\ 398.52 \\ \hline \$8545.31 \end{array}$

8. $5\overline{)2646}$ = 529 R1

9. $\begin{array}{r} \$47.39 \\ -\ 22.95 \\ \hline \$24.44 \end{array}$

10. $\begin{array}{r} 600 \\ \times\ 13 \\ \hline 7800 \end{array}$

11. $7 \times 15 \times 36$ = 3780

12. $7013 \div 8$ = 876 R5

13. $8142 - 507$ = 7635

14. $32\,520 \div 6$ = 5420

15. $\$41.27 \times 63$ = $2600.01

16. $214\,831 + 419\,270$ = 634 101

Solve. Show your work.

17. The central library divided $1000 equally among its 4 branches. How much did each get? $250

18. 8 adults in an elevator have an average mass of 76 kg. What is their total mass? 608 kg

19. The bluejay population in our area last summer was estimated to be 9500. The robin population was estimated to be 17 900. What is the total population of the 2 birds? 27 400

20. To find the average height of 6 children, Tom took the sum of their heights and divided by 6. The sum of their heights was 588 cm. What was the average height? 98 cm

21. When the auditorium is filled with adults, the ticket sales amount to $5385. What is the total sales when the auditorium is filled for 7 performances? $37 695

22. The St. Lawrence River is about 3040 km long. The Yukon River is about 2880 km long. How much longer is the St. Lawrence? 160 km

NAME

SPM5/U5/90-91

## A Shorter Form for Division

Divide. Use the shorter form.

1. 4)273 — 68 R1; 240 (4 × 60); 33; 32 (4 × 8); 1

2. 6)525 — 87 R3; 480 (6 × 80); 45; 42; 3

3. 5)980 — 196

4. 7)4151 — 593

5. 8)3007 — 375 R7

6. 8)984 — 123

7. 3)432 — 144

8. 5)2107 — 421 R2

9. 7)3678 — 525 R3

10. 9)25 671 — 2852 R3

SPM5/U5/92-93

## The Standard Form for Division

Divide. Use the standard form.

1. 3)2352 — 784; 21 ← (3 × 7); 25; 24 ← (3 × 8); 12; 12 (3 × 4); 0

2. 7)2378 — 391 R1; 21 ← (7 × 3); 27; 27; 08; 7; 1

3. 6)4052 — 675 R2

4. 4)588 — 147

5. 3)4091 — 1363 R2

6. 5)834 — 166 R4

7. 6)1279 — 213 R1

8. 2)6730 — 3365

9. 9)53 201 — 5911 R2

10. 8)21 390 — 2673 R6

NAME _____

## Practice

Perform the indicated operation.

1. $41 916 − 24 828 = $17 088

2. 2346 × 83 = 194 718

3. 7)4068 = 581 R1

4. $473.85 + 264.91 = $738.76

5. 3)2478 = 826

6. 700 × 21 = 14 700

7. 2738 + 4621 + 12 909 = 20 268

8. $27.80 − 14.95 = $12.85

9. $36.47 × 23 = $838.81

10. 7)27 388 = 3912 R4

11. 14 371 ÷ 8 = 1796 R3

12. 3 × 24 × 270 = 19 440

13. 84 219 − 4375 = 79 844

14. 864 + 921 + 1382 = 3167

15. 3005 ÷ 4 = 751 R1

16. $12.37 × 12 = $148.44

Solve. Show your work.

17. The three players signed contracts for $75 000, $88 000, and $135 000. How much is this in all? $298 000

18. One wilderness area of 2700 km² in Canada has a population density of 14 people/km². How many people live in this area? 193

19. A census study shows the average family income in a town to be $5436. If the town has a population of 183 families, what is the total income in the town? $994 788

20. The 1970 population of Newfoundland was 516 000. At that time, Nova Scotia had a population of 776 000. How many more people lived in Nova Scotia? 260 000

21. 288 visitors are expected. There are 8 guides. How many visitors per guide will there be? 36

22. 4 men working on a farm harvested 10 900 kg of wheat. How many kilograms per man is this? 2725 kg

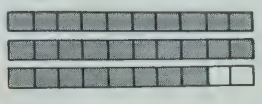
NAME

SPM5/U6/100-101

## Using Decimals to Show Tenths

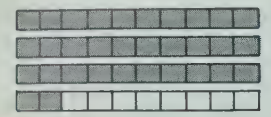
Write the one-place decimal for each.
Write the words for each.

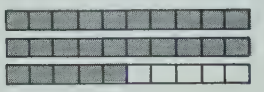
1.
1.4
one and four-tenths

2. 
2.8
Two and eight-tenths

3.
0.6
six-tenths

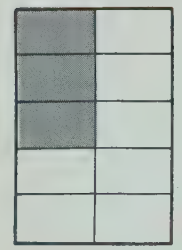
4.
1.1
one and one-tenth

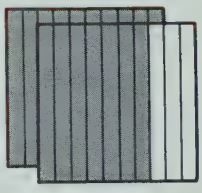
5. 
3.2
three and two-tenths

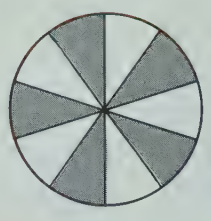
6. 
2.5
two and five-tenths

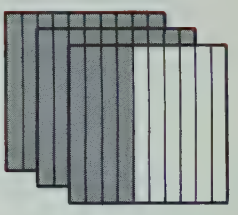
7.
4.7
four and seven-tenths

8.
0.9
nine-tenths

9. 
0.3
three-tenths

10. 
1.7
one and seven-tenths

11. 
0.5
five-tenths

12. 
2.4
two and four-tenths

SPM5/U6/102-103

## Using Decimals to Show Hundredths

Write the two-place decimal for each.
Write the words for each.

1. ones | tenths | hundredths: 4 | 0 | 2
4.02
four and two-hundredths

2. ones | tenths | hundredths: 0 | 2 | 4
0.24
twenty-four hundredths

3. ones | tenths | hundredths: 1 | 3 | 1
1.31
one and thirty-one hundredths

4. ones | tenths | hundredths: 3 | 0 | 6
3.06
three and six hundredths

5. ones | tenths | hundredths: 7 | 6 | 0
7.60
seven and sixty hundredths

6. ones | tenths | hundredths: 0 | 9 | 3
0.93
ninety-three hundredths

7. ones | tenths | hundredths: 1 | 6 | 2
1.62
one and sixty-two hundredths

8. ones | tenths | hundredths: 0 | 2 | 4
0.24
twenty-four hundredths

9. ones | tenths | hundredths: 5 | 9 | 9
5.99
five and ninety-nine hundredths

NAME

SPM5/U6/106-107

## Using Decimals to Show Thousandths

Write the three-place decimal.

1. one and seventy-three thousandths 1.073
2. five and two-thousandths 5.002
3. sixty-nine thousandths 0.069

Write using words.

4. 2.052
   two and fifty-two thousandths
5. 0.019
   nineteen thousandths
6. 1.008
   one and eight-thousandths

What does each 2 mean?

7. 15.142 2 thousandths
8. 4.021 2 hundredths
9. 0.052 2 thousandths

Write the three-place decimal.

10. two-thousandths
    0.002
11. six and twenty-two thousandths 6.022
12. 3 and 120 thousandths
    3.120

Write using words.

13. 5.006
    five and six-thousandths
14. 2.891
    two and eight hundred ninety-one thousandths
15. 0.048
    forty-eight thousandths

What does each 8 mean?

16. 0.008
    8 thousandths
17. 0.508
    8 thousandths
18. 3.485
    8 hundredths

SPM5/U6/108

## Comparing Decimals

Compare the whole numbers and then the digits in the decimal places.
Use >, <, or = to make true statements.

1. 18.071 < 18.17
2. 3.35 < 3.45
3. 1.201 > 1.102
4. 0.879 < 0.987
5. 6.2 = 6.20
6. 0.407 < 0.47
7. 9.45 < 9.452
8. 0.5 < 0.9
9. 17.4 < 17.83
10. 0.9 = 0.900
11. 1.21 > 1.12
12. 67.03 < 67.3
13. 20.005 < 20.5
14. 19.500 < 19.62
15. 78.1 > 78.015
16. 6.5 > 6.45
17. 3.065 < 3.6
18. 0.71 > 0.7

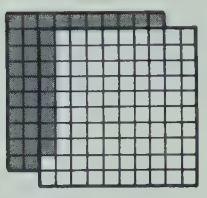
NAME _____

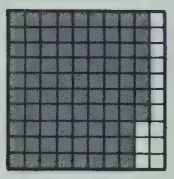
## Practice

Write a decimal for each.

1. 1.6

2. 0.3

3.  1.08

4.  0.87

5. ones | tenths: 2 4 → 2.4

6. six-tenths 0.6

7. ones | tenths: 4 7 → 4.7

8. seven and two-hundredths 7.02

9. ones | tenths | hundredths: 0 1 7 → 0.17

10. 9 and 12 hundredths 9.12

11. ones | tenths | hundredths: 4 0 9 → 4.09

12. fifteen and thirty-two hundredths 15.32

13. ones | tenths | hundredths: 5 5 5 → 5.55

14. five and five-thousandths 5.005

15. two and one hundred two-thousandths 2.102

16. two hundred six-thousandths 0.026

17. ones | tenths | hundredths | thousandths: 5 2 8 1 → 5.281

Write using words.

18. 3.2 three and two-tenths

19. 0.7 Seven-tenths

20. 5.1 five and one-tenth

21. 0.20 twenty-hundredths

22. 5.02 five and two-hundredths

23. 7.18 Seven and eighteen-hundredths

24. 3.107 three and one hundred seven-thousandths

25. 0.056 fifty-six thousandths

26. 1.001 one and one-thousandth

Tell what each underlined digit means.

27. 0.5̲1 5 tenths

28. 3.684̲ 4 thousandths

29. 2̲.7 2 ones

30. 9̲2 2 ones

31. 0.6̲ 6 tenths

32. 2.30̲6 0 hundredths

Use >, <, or = to make true statements.

33. 2.01 = 2.010

34. 18.2 > 17.9

35. 42.4 > 42.38

36. 1.7 = 1.70

37. 22.007 < 22.7

38. 0.416 < 0.461

39. 0.18 < 0.2

40. 0.100 = 0.1

41. 0.006 < 0.6

NAME

SPM5/U6/109-110

## Ordering Decimals

List from greatest to least.

1. 5.721, 5.712, 5.727, 5.271

5.727, 5.721, 5.712, 5.271

2. 0.7, 0.71, 0.17, 0.171

0.71, 0.7, 0.171, 0.17

List from least to greatest.

3. 9.7, 9.371, 9.137, 9.13

9.13, 9.137, 9.371, 9.7

4. 5.15, 5.521, 5.125, 5.5

5.125, 5.15, 5.521, 5.5

List from greatest to least.

5. 0.15, 0.45, 0.25, 0.2

0.45, 0.25, 0.2, 0.15

6. 2.71, 2.17, 2.7, 2.8

2.8, 2.71, 2.7, 2.17

7. 11.84, 11.084, 11.184, 1.84

11.84, 11.184, 11.084, 1.84

8. 6.564, 6.545, 6.546, 6.566

6.566, 6.564, 6.546, 6.545

List from least to greatest.

9. 0.021, 0.12, 0.002, 0.21

0.002, 0.021, 0.12, 0.21

10. 6.79, 6.7, 6.07, 6.791

6.07, 6.7, 6.79, 6.791

11. 0.717, 0.7, 0.71, 0.72

0.7, 0.71, 0.717, 0.72

12. 3.413, 3.34, 3.43, 4.3

3.34, 3.413, 3.43, 4.3

SPM5/U6/112-113

## Rounding Decimals

Round to the nearest whole number.

1. 2.91 3

2. 67.236 67

3. 5.149 5

4. 8.5 9

Round to the nearest tenth.

5. 4.67 4.7

6. 0.062 0.1

7. 12.15 12.2

8. 9.912 9.9

Round to the nearest whole number.

9. 4.8 5

10. 46.81 47

11. 3.56 4

12. 0.602 1

Round to the nearest tenth.

13. 21.735 21.7

14. 7.09 7.1

15. 0.19 0.2

16. 10.009 10.0

NAME

SPM5/U6/116-117

## Adding Decimals

Add.

| | | | |
|---|---|---|---|
| 1. 1.789<br>5.371<br>7.160 | 2. 6.78<br>2.93<br>9.71 | 3. 70.7<br>76.8<br>147.5 | 4. 40.1 + 506.2 + 8.6<br>554.9 |

5. 26.7 + 37.5 = 64.2

6. 3.65 + 1.28 = 4.93

7. 36.8 + 409.8 = 446.6

8. 68.45 + 5.32 = 73.77

9. 6.519 + 5.087 = 11.606

10. 3.45 + 5.67 = 9.12

11. 5.8 + 5.9 = 11.7

12. 4.979 + 8.645 = 13.624

13. 40.1 + 6.2 + 18.6 + 38.5 = 103.4

14. 18.134 + 4.782 + 6.894 = 29.810

SPM5/U6/118-119

## Subtracting Decimals

Subtract.

| | | | |
|---|---|---|---|
| 1. ~~8.25~~ 7.15 − 5.46 = 1.79 | 2. ~~60.4~~ 59.14 − 36.5 = 23.9 | 3. 95.7 − 77.8 = 17.9 | 4. 6.580 − 3.732<br>2.848 |

5. 5.091 − 3.123 = 1.968

6. 40.4 − 25.8 = 14.6

7. 81.96 − 67.21 = 14.75

8. 6.663 − 2.867 = 3.796

9. 43.20 − 16.75 = 26.45

10. 9.006 − 7.543 = 1.463

11. 5.209 − 1.534 = 3.675

12. 63.9 − 15.3 = 48.6

13. 0.76 − 0.48 = 0.28

14. 69.32 − 43.38 = 25.94

15. 600.68 − 514.26 = 86.42

16. 20.00 − 12.53 = 7.47

17. 67.837 − 62.459 = 5.378

NAME _____

## Practice

Perform the indicated operation.

1. $7.34 + 2.98 = 10.32$

2. $16.73 - 4.81 = 11.92$

3. $2739 \times 15 = 41\,085$

4. $8\overline{)9180} = 1147$ R4

5. $\$17.46 + 8.21 + 9.73 = \$35.40$

6. $5\overline{)22\,415} = 4483$

7. $32\,809 \times 6 = 196\,854$

8. $\$2784 - 961 = \$1823$

9. $400 \times 16 = 6400$

10. $3.417 - 0.682 = 2.735$

11. $1095 + 861 = 1956$

12. $3 \times 19 \times 184 = 10\,488$

13. $6.812 - 3.745 = 3.067$

14. $\$16.00 - \$9.08 = \$6.92$

15. $189 \div 3 = 63$

16. $21.7 + 83.6 + 2.9 = 108.2$

Solve. Show your work.

17. The runner ran 4 laps of the track. The lap times were 62.6 s, 63.4 s, 63.7 s, and 62.3 s. What was the average lap time? 63 s

18. Licences were issued to 42 381 people last year. 1 427 of these were later cancelled. How many of the licences remained valid? 40 954

19. A book is for sale for $11.95 per copy. The library wants 4 copies. How much will this cost? $47.80

20. Mr. Keene was paid $512 for 8 d work. He made the same amount each day. How much did he make per day? $64

21. Juliet swam four lengths of the pool in these times: 21.35 s, 22.40 s, 22.75 s, and 23.68 s. What was her total time for the 4 lengths? 90.18 s

22. From noon to 1 p.m., the tide rose 18.7 cm. It fell 6.8 cm from 1 p.m. to 2 p.m. How much higher was it at 2 p.m. than at noon? 11.9 cm

NAME

SPM5/U7/126-127

## Measuring with Metres or Centimetres

Complete.

| | | |
|---|---|---|
| 1. 170 cm = 1.7 m<br>(100 cm = 1 m) | 2. 3 m = 300 cm<br>(1 m = 100 cm) | 3. 85 cm = 0.85 m |

4. 450 cm = 4.5 m
5. 2 m = 200 cm
6. 306 cm = 3.06 m
7. 6.8 m = 680 cm
8. 500 cm = 5 m
9. 0.5 m = 50 cm

Measure to the nearest centimetre.
Use a decimal to give the length in metres.

10. the height of your classroom door Answers will vary.
11. the length of your arm Answers will vary.
12. the height of the pencil sharpener Answers will vary.
13. the length of this page 27 cm 0.27 m

## Practice

Solve. Show your work.

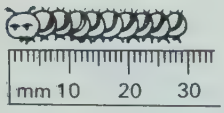
1. The drugstore sells vitamin pills with 150 in a bottle. How many vitamin pills are in 6 bottles? 900
2. Randolph has to read 1106 pages in a week. How many pages should he average for each of the 7 d? 158
3. Melinda is painting a neighbor's house. During the first week she earned $47.00. During the next two weeks she earned $85.50 each week. How much has she made so far? $132.50
4. The three Chatterjee children ask their mother for money to buy fish and chips. Each meal costs $2.95. How much would she have to give them? $8.85
5. When the gas tank has been filled, the car can go 650 km. Mr. Braun knows he has driven 175 km on this tank of gasoline. How much farther can he go? 475 km
6. Lisa finished the race in 50.03 s. The winner's time was 45.77 s. How many seconds more did Lisa take? 4.26 s

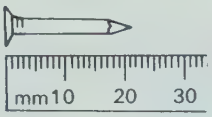
NAME

SPM5/U7/128-129

## Measuring with Millimetres

Measure to the nearest millimetre.

1. 

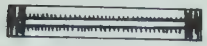

2. 

22 mm

3.
18 mm

4. 
44 mm

5.
8 mm

6. 
25 mm

7. 
53 mm

8.
60 mm

9.
11 mm

10. 
34 mm

11.
68 mm

SPM5/U7/130-131

## Metres, Centimetres, and Millimetres

Give each length in centimetres. (1 mm = 0.1 cm, 1 m = 100 cm)

1. 14 mm 1.4 cm
2. 4 m 400 cm
3. 112 mm 11.2 cm
4. 0.35 m 35 cm

Give each length in millimetres. (1 cm = 10 mm, 1 m = 1000 mm)

5. 2.8 cm 28 mm
6. 0.25 m 250 mm
7. 0.3 cm 3 mm
8. 3.6 m 3600 mm

Give each length in metres. (1 mm = 0.001 m, 1 cm = 0.01 m)

9. 1500 mm 1.5 m
10. 155 cm 1.55 m
11. 770 mm 0.77 m
12. 90 cm 0.9 m

Give each length in centimetres.

13. 5 mm 0.5 cm
14. 2.3 m 230 cm
15. 30 mm 3 cm
16. 0.02 m 2 cm

Give each length in millimetres.

17. 2 m 2000 mm
18. 4.9 cm 49 mm
19. 13 cm 130 mm
20. 0.009 m 9 mm

Give each length in metres.

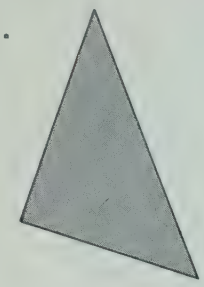
21. 6 cm 0.06 m
22. 3000 mm 3 m
23. 630 cm 6.3 m
24. 7 mm 0.007 m

NAME

SPM5/U7/132

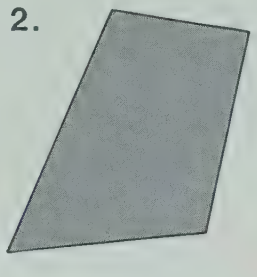
## Finding the Perimeter

Measure each side in millimetres. Then add to find the perimeter.

1. 

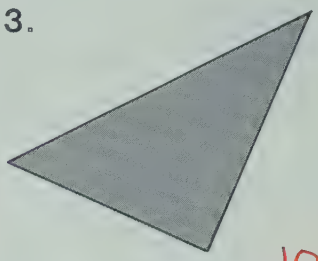
29
37
24
90

90 mm

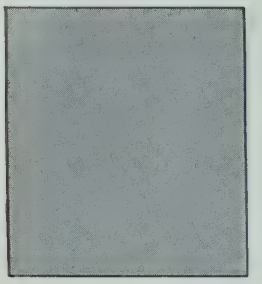
2. 

18
26

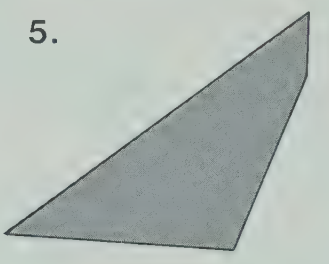
104 mm

3. 

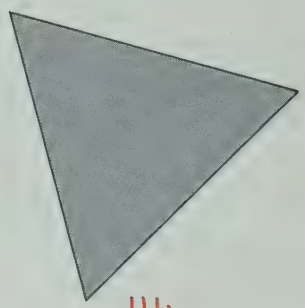
104 mm

4. 

132 mm

5. 

109 mm

6. 

114 mm

SPM5/U7/134-135

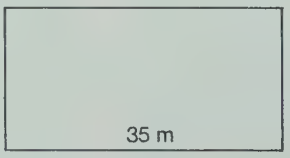
## Finding the Perimeter of a Square or Rectangle

Find the perimeter of each square or rectangle.

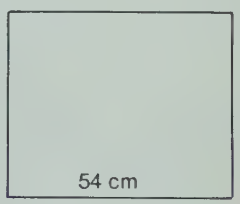
1.


20
4
80

80 mm

2. 

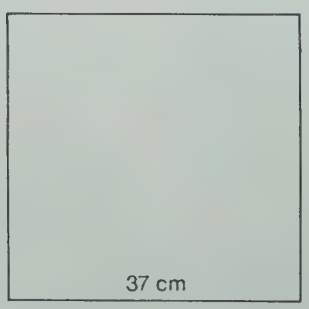

(2×35)+(2×18)= 106 106 m

3. 

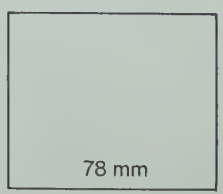

200cm

4.


528 m

5. 


148 cm

6. 


290 mm

What is the perimeter

7. of a square with each side 9 cm long? 36 cm

8. of a rectangle that is 12 m long and 10 m wide? 44 m

NAME _____

## Practice

Measure to the nearest centimetre.

1. 4 cm
2. 7 cm
3. 10 cm
4. 14 cm

Measure to the nearest millimetre.

5. 55 mm
6. 28 mm
7. 42 mm
8. 64 mm

Give each length in centimetres.

9. 30 mm 3 cm
10. 6 m 600 cm
11. 8 mm 0.8 cm
12. 3.2 m 320 cm

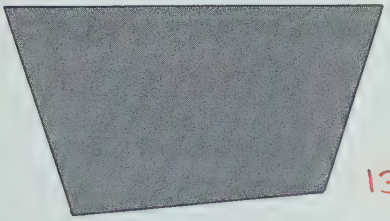
Give each length in millimetres.

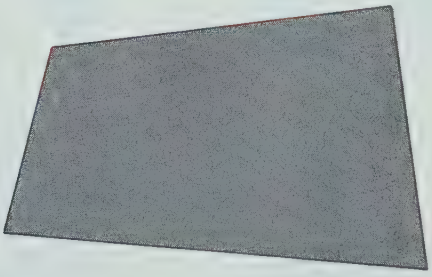
13. 1.5 cm 15 mm
14. 3 m 3000 mm
15. 7 cm 70 mm
16. 0.45 m 450 mm

Give each length in metres.

17. 225 cm 2.25 m
18. 1250 mm 1.25 m
19. 80 cm 0.8 m
20. 500 mm 0.5 m

Measure to find the perimeter in millimetres.

21. 
135 mm

22. 
161 mm

Find the perimeter of each square or rectangle.

23.

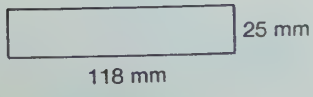
176 m

24.

298 cm

25.

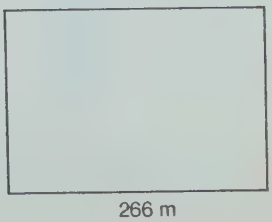
632 mm

26. 

286 mm

27.

304 cm

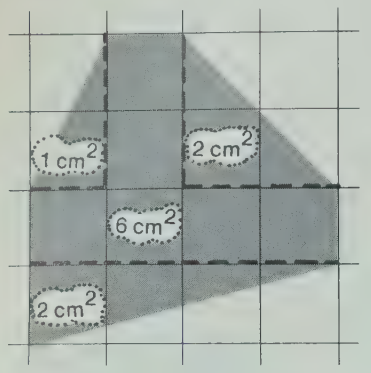
28. 

910 m

## Counting to Find the Area

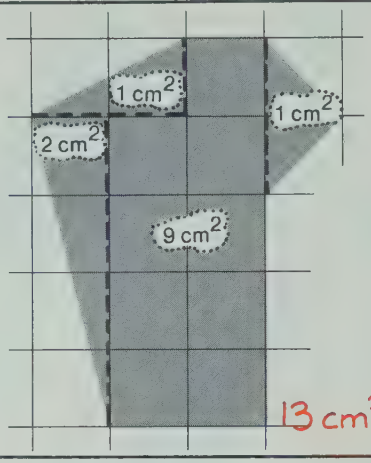
Find the area of each shape in square centimetres.

1.



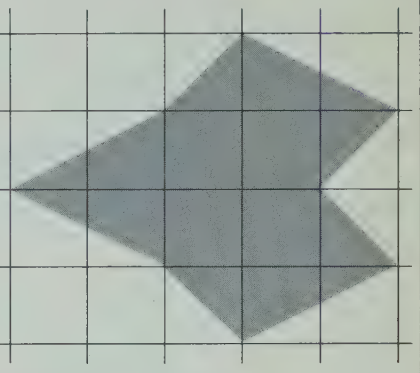

11 cm²

2.



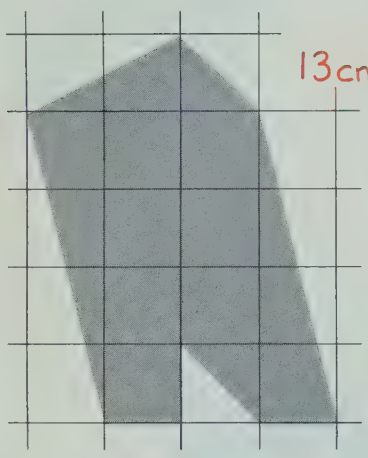

13 cm²

3.



10 cm²

4.

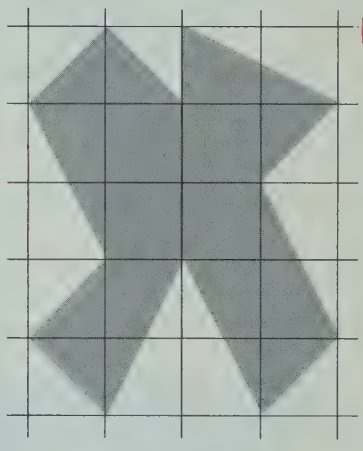


13 cm²

5.

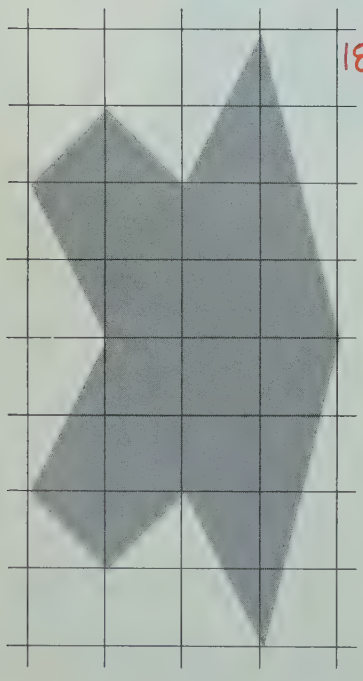
12 cm²

6.



12 cm²

7.

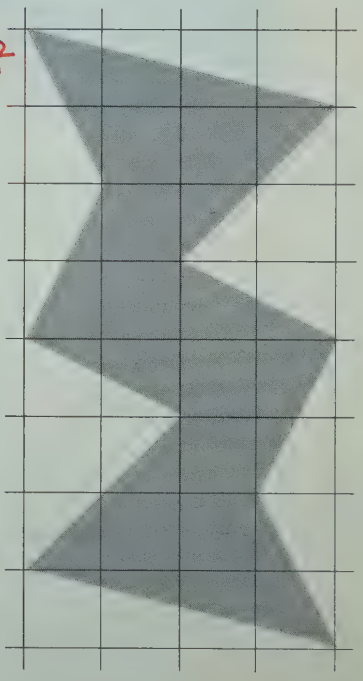


18 cm²

8.

20 cm²

9.



18 cm²

NAME

SPM5/U7/138-139

## Finding the Area of a Rectangle

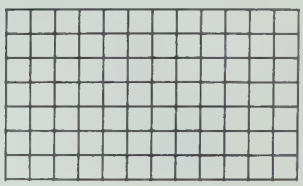
Each small square represents 1 cm². What is the area of each rectangle?

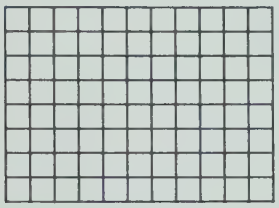
1.

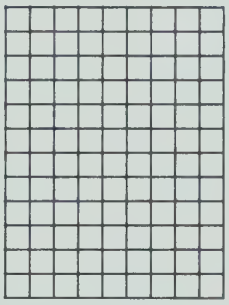
54 cm²

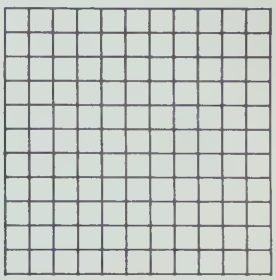
2.

50 cm²

3. 
84 cm²

4. 
88 cm²

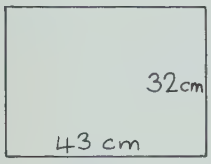
5. 
108 cm²

6. 
121 cm²

SPM5/U7/140-141

## Finding the Area of a Rectangle by Using its Length and Width

Find the area of each rectangle.

1. 

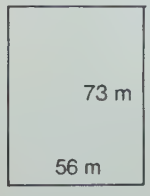
43 × 32 = 86 + 1290 = 1376
1376 cm²

2.

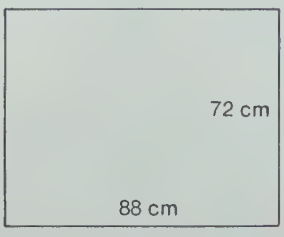
45 × 45 = 225 + 180 = 2025
2025 m²

3.

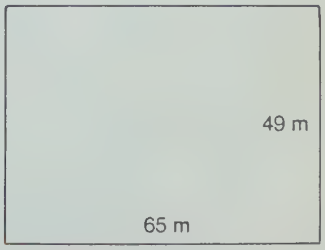
486 cm²

4. 

4088 m²

5. 

6336 cm²

6. 

3185 m²

7. length: 14 cm
width: 19 cm
266 cm²

8. length: 23 m
width: 52 m
1196 m²

9. length: 35 cm
width: 35 cm
1225 cm²

NAME

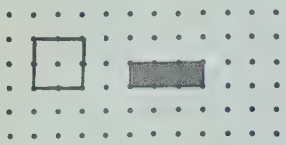
SPM5/U7/142

## Rectangles Having a Given Perimeter

Show two rectangles each having the perimeter given. Shade inside one of the rectangles.

The dimensions of the rectangles possible are shown.

1. 8 units



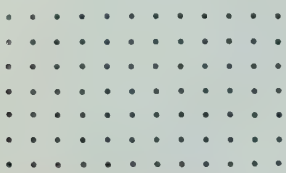
2. 12 units

also 3 by 3 or 5 by 1

3. 20 units

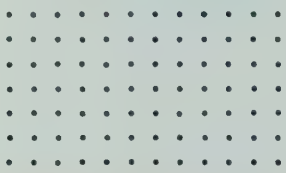
5 by 5, 6 by 4, 7 by 3, 8 by 2, 9 by 1

4. 10 units



3 by 2, 4 by 1

5. 18 units



5 by 4, 6 by 3, 7 by 2, 8 by 1

6. 24 units

6 by 6, 7 by 5, 8 by 4, 9 by 3, 10 by 2, 11 by 1

7. What is the area of each rectangle you drew for Exercises 1-6? (in square units)

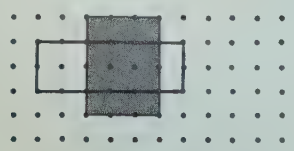
1. 4, 3  2. 8, also 9, 5  3. 25, 24, 21, 16, 9  4. 6, 4
5. 20, 18, 14, 8  6. 36, 35, 32, 27, 20, 11

SPM5/U7/143

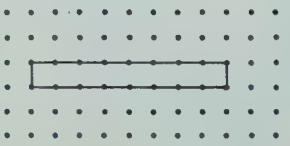
## Rectangles Having a Given Area

Show two rectangles each having the area given. Shade inside one of the rectangles.

1. 12 square units



2. 8 square units



also 4 by 2

3. 18 square units

9 by 2, 6 by 3

4. 16 square units

8 by 2, 4 by 4

5. 36 square units

9 by 4, 6 by 6

6. 24 square units

8 by 3, 6 by 4

7. What is the perimeter of each rectangle you drew for Exercises 1-6? (in units)

1. 16, 14  2. 18, also 12  3. 22, 18  4. 20, 16
5. 26, 24  6. 22, 20

NAME _____

## Practice

Perform the indicated operation.

1. 2337 + 4916 + 825 = 8078

2. 17.014 − 8.627 = 8.387

3. $42.35 × 7 = $296.45

4. 6)4129 = 688 R1

5. 5.861 + 9.732 = 15.593

6. 2040 − 768 = 1272

7. 5)2405 = 481

8. 72846 × 8 = 582 768

9. $91.15 + 7.42 = $98.57

10. 400 × 17 = 6800

11. 27 × 19 × 36 = 18 468

12. 4.718 − 2.916 = 1.802

13. $5.79 + $6.14 + $3.75 = $15.68

14. 1728 ÷ 6 = 288

15. $16.81 − $2.75 = $14.06

16. 2471 + 386 + 27 + 9 = 2893

Solve. Show your work.

17. The length of a garden is 27 m. The width of the garden is 15 m. Find the area of the garden. 405 $m^2$

18. The length of the book is 28 cm. The width is 19 cm. What is the perimeter? 94 cm

19. The workers are putting up a fence 126 m long. They need to put in a post every 3 m, and one at each end. How many posts will this take? 43

20. The phone bill is $25.68. The hydro bill is $53.79. The gas bill is $45.95. What is the total for the three utilities? $125.42

21. Mrs. Epping told Laura that her locker number plus Laura's adds to exactly 10 000. Laura knows that her locker number is 1170. What is Mrs. Epping's number? 8830

22. The school play yard needs new fencing. The perimeter of the yard is 86 m. The fencing costs $6.50/m. What will the fencing for the yard cost? $559

NAME

SPM5/U8/148-149

## Multiplying Decimals, to 0.9, 0.09, or 0.009, by One-Digit Whole Numbers

Multiply.

| | | |
|---|---|---|
| 1. 4 x 0.6 2.4<br>4 x 6 tenths = 24 tenths | 2. 7 x 0.9 6.3<br>7 x 9 tenths = 63 tenths | 3. 7 x 0.06 0.42 |

4. 4 x 0.06 0.24
5. 7 x 0.09 0.63
6. 4 x 0.07 0.28
7. 4 x 0.09 0.36
8. 1 x 0.7 0.7
9. 5 x 0.004 0.020
10. 2 x 0.003 0.006
11. 6 x 0.8 4.8
12. 3 x 0.05 0.15
13. 1 x 0.2 0.2
14. 0 x 0.009 0
15. 8 x 0.08 0.64

16. 0.2 × 3 = 0.6
17. 0.01 × 6 = 0.06
18. 0.006 × 2 = 0.012
19. 0.5 × 8 = 4.0
20. 0.03 × 5 = 0.15

SPM5/U8/150-151

## Multiplying Decimals by One-Digit Whole Numbers

Multiply.

| | | | |
|---|---|---|---|
| 1. 13.6 × 2 = 27.2 | 2. 1.36 × 3 = 4.08 | 3. 4.1 × 7 = 28.7 | 4. 2 x 0.136 = 0.272 |

5. 8.5 × 3 = 25.5
6. 0.91 × 6 = 5.46
7. 0.804 × 7 = 5.628
8. 0.372 × 4 = 1.488
9. 6.43 × 8 = 51.44
10. 38.2 × 9 = 343.8
11. 47.15 × 6 = 282.90
12. 3.36 × 3 = 10.08
13. 27.6 × 4 = 110.4
14. 0.63 × 9 = 5.67
15. 5 x 0.921 = 4.605
16. 8 x 0.014 = 0.112
17. 4 x 9.286 = 37.144

NAME

SPM5/U8/152-153

## Estimating the Product

Round to the nearest whole number and multiply to estimate the product. Then find the exact product.

| | | | | |
|---|---|---|---|---|
| 1. 7.9 → 8 (3)<br>4 → 4<br>31.6 32 | 2. 6.8 → 7 (2)<br>3 → 3<br>20.4 21 | 3. 3.7 4<br>5 5<br>18.5 20 | 4. 4.9 5<br>6 6<br>29.430 | 5. 2.84 3<br>7 7<br>19.88 21 |
| 6. 3.9 4<br>8 8<br>31.2 32 | 7. 5.8 6<br>4 4<br>23.2 24 | 8. 8.69 9<br>7 7<br>60.83 63 | 9. 5.73 6<br>3 3<br>17.19 18 | 10. 2.864 3<br>2 2<br>5.728 6 |
| 11. 7.64 8<br>5 5<br>38.20 40 | 12. 0.89 1<br>9 9<br>8.01 9 | 13. 1.3 1<br>6 6<br>7.8 6 | 14. 6.23 6<br>8 8<br>49.84 48 | 15. 3.579 4<br>2 2<br>7.158 8 |

SPM5/U8/154-155

## Multiplying Decimals and Whole Numbers

Multiply.

| | | | | |
|---|---|---|---|---|
| 1. 8.5 (tenths) (1 ~~2~~)<br>25<br>425<br>1700<br>212.5 (tenths) | 2. 76 (3 ×)<br>6.3 (tenths)<br>228<br>4560<br>478.8 (tenths) | 3. 4.7<br>38<br>178.6 | 4. 290<br>8.1<br>2349.0 | 5. 0.35<br>29<br>10.15 |
| 6. 2.9<br>39<br>113.1 | 7. 62<br>5.4<br>334.8 | 8. 8.4<br>96<br>806.4 | 9. 714<br>7.2<br>5140.8 | 10. 8.63<br>13<br>112.19 |
| 11. 0.45<br>48<br>21.60 | 12. 900<br>1.7<br>1530.0 | 13. 6.35<br>24<br>152.40 | 14. 3.718<br>18<br>66.924 | 15. 500<br>0.023<br>11.500 |

NAME _____

## Practice

Perform the indicated operation.

1. $2.79 \times 14$ = 39.06

2. $27\,012 - 8\,165$ = 18 847

3. $293 + 418 + 602$ = 1313

4. $4)2706$ = 676 R2

5. $\$19.70 - 4.86$ = $14.84

6. $6.7 \times 5$ = 33.5

7. $3)8277$ = 2759

8. $12.802 - 4.176$ = 8.626

9. $624 \times 30$ = 18720

10. $2.781 + 1.305 + 4.619$ = 8.705

11. $64.2 \times 83$ = 5328.6

12. $2.741 + 8.193$ = 10.934

13. $\$6.46 - \$3.71$ = $2.75

14. $7 \times 21 \times 104$ = 15 288

15. $7.412 \times 5$ = 37.060

16. $70\,233 \div 2$ = 35 116 R1

Solve. Show your work.

17. Thompson School has one dictionary for every 8 students. There are 368 students. How many dictionaries does the school have? 46

18. The Hopes plan to travel to Calgary which is 3430 km away. They will drive 1775 km and go the rest of the way by train. How far will they travel by train? 1287 km

19. In the recycling drive the Alpha School collected 1481 aluminum cans. The Bravo School collected 2755. How many cans did the two schools collect? 4236

20. Zoltan's lawn has a width of 12 m and a length of 20 m. It will cost about 15¢/m² to re-seed it. How much will this cost? $36.00

21. Tickets costs $2.75. Mrs. Kale bought 24 for her class. How much did this cost? $66.00

22. How many minutes are there in 8 d? 11 520

NAME



## 1000, 100, 10, 1, 0.1, 0.01 or 0.001 as a Factor

Multiply.

| | | |
|---|---|---|
| 1. 36 x 10 360<br>36 one place – – greater 360<br>4. 0.1 x 36 3.6<br>36 one place – – less 3.6 | 2. 36 x 100 3600<br>36 two places – – greater<br>5. 0.01 x 36 0.36<br>36 two places – – less | 3. 36 x 1000 36 000<br>6. 0.001 x 36 0.036 |

| | | |
|---|---|---|
| 7. 74 x 10 740 | 8. 74 x 100 7400 | 9. 74 x 0.1 7.4 |
| 10. 74 x 0.001 0.074 | 11. 0.01 x 5.1 0.051 | 12. 100 x 5.1 510 |
| 13. 10 x 0.89 8.9 | 14. 100 x 2.43 243 | 15. 0.1 x 0.05 0.005 |
| 16. 652 x 0.001 0.652 | 17. 1000 x 0.278 278 | 18. 8400 x 0.01 84 |
| 19. 4.1 x 0.1 0.41 | 20. 10 x 0.01 0.1 | 21. 0.004 x 100 0.4 |
| 22. 100 x 0.09 9 | 23. 38 x 0.1 3.8 | 24. 0.01 x 28.6 0.286 |
| 25. 1.7 x 10 17 | 26. 0.01 x 0.1 0.001 | 27. 0.87 x 1000 870 |

## Practice

Solve. Show your work.

1. 26 students gathered names on a safety petition. Each student filled 3 pages. Each page had 50 names. How many names did they gather in all? 3900

2. In the election, Ecker received 12 589 votes, Figueroa received 7291 votes, and Garfield received 10 777 votes. How many votes were cast? 30 657

3. How many more votes than Ecker did Figueroa and Garfield receive in all? 5479

4. Bancroft School orders 35 copies of a textbook. They cost $7.95 each. How much will 35 cost? $278.25

5. 9 campaign workers had to contact 3060 voters. They shared the names equally. How many voters did each have to contact? 340

6. The budget allowed $17 500 for February. What is the average amount budgeted for each of the 4 weeks of February? $4375

NAME

SPM5/U8/160

## Changing Measurement Units

| | |
|---|---|
| 1 m = 10 dm | 1 dm = 0.1 m |
| 1 m = 100 cm | 1 cm = 0.01 m |
| 1 m = 1000 mm | 1 mm = 0.001 m |

Change to the larger unit.

1. 362 cm = 3.62 m
2. 875 cm = 8.75 m
3. 50 cm = 0.5 m
4. 18 mm = 1.8 cm
5. 2 mm = 0.2 cm
6. 6000 mm = 6 m

Change to the smaller unit.

7. 7.8 m = 780 cm
8. 1.5 m = 150 cm
9. 0.7 m = 70 cm
10. 3 cm = 30 mm
11. 24.5 cm = 245 mm
12. 1.2 m = 1200 mm

Complete.

13. 4 m = 400 cm
14. 3.1 m = 3100 mm
15. 3500 mm = 3.5 m
16. 8.1 m = 81 dm
17. 28 cm = 0.28 m
18. 0.8 m = 800 mm
19. 65 cm = 650 mm
20. 79.1 dm = 7.91 m
21. 185 cm = 1.85 m
22. 0.3 m = 30 cm
23. 600 mm = 0.6 m
24. 480 mm = 48 cm

## Practice

Solve. Show your work.

1. A typical North American household uses about 240 L of water each day. About how many litres of water would a community of 135 households use? 32 400 L

2. The 1966 population of Vancover was 384 522. In 1900 the population was only 178 657. By how much had Vancouver grown? 205 865

3. At a banquet, 386 guests are asked to sit at tables for 4. After filling as many tables as possible, how many guests will there be who will have to sit at a table with fewer than 4? 2

4. Mrs. Flora goes to the greenhouse to buy plants. She gets 2 chrysanthemums at $3.98 each and 3 azaleas at $5.95 each. How much do the plants cost in all? $25.81

5. The summer festival had 3218 visitors in June, 5043 in July, and 4721 in August. What was the total three-month attendance? 12 982

6. The average family in Smithville has 5 members. The population of Smithville is 2755. About how many families live in Smithville? 551

NAME

SPM5/U8/161

## Multiplying Decimal Tenths, Both Factors Less Than 1.0

Multiply. Remember, the product of two decimals showing tenths is a decimal showing hundredths.

| | | | |
|---|---|---|---|
| 1. 0.4 (tenths) × 0.3 (tenths) = 0.12 (hundredths) | 2. 0.6 (tenths) × 0.5 (tenths) = 0.30 (hundredths) | 3. 0.8 × 0.7 = 0.56 | 4. 0.9 x 0.5 = 0.45 |

| | | | | |
|---|---|---|---|---|
| 5. 0.3 × 0.7 = 0.21 | 6. 0.9 × 0.2 = 0.18 | 7. 0.4 × 0.8 = 0.32 | 8. 0.9 × 0.9 = 0.81 | 9. 0.5 × 0.5 = 0.25 |
| 10. 0.1 × 0.1 = 0.01 | 11. 0.4 × 0.6 = 0.24 | 12. 0.6 × 0.8 = 0.48 | 13. 0.7 × 0.4 = 0.28 | 14. 0.8 × 0.3 = 0.24 |

15. 0.6 x 0.9 = 0.54

16. 0.2 x 0.2 = 0.04

17. 0.9 x 0.4 = 0.36

SPM5/U8/162-163

## Multiplying Decimal Tenths, One Factor Less Than 1.0

Multiply. Remember, the product of two decimals showing tenths is a decimal showing hundredths.

| | | | |
|---|---|---|---|
| 1. 7.3 (tenths) × 0.4 (tenths) = 2.92 (hundredths) | 2. 6.3 (tenths) × 0.2 (tenths) = 1.26 (hundredths) | 3. 6.8 × 0.3 = 2.04 | 4. 0.9 x 10.2 = 9.18 |

| | | | | |
|---|---|---|---|---|
| 5. 5.6 × 0.6 = 3.36 | 6. 8.4 × 0.4 = 3.36 | 7. 9.7 × 0.8 = 7.76 | 8. 5.0 × 0.5 = 2.50 | 9. 7.8 × 0.2 = 1.56 |
| 10. 4.7 × 0.7 = 3.29 | 11. 27.9 × 0.3 = 8.37 | 12. 46.8 × 0.5 = 23.40 | 13. 34.9 × 0.9 = 31.41 | 14. 25.8 × 0.8 = 20.64 |

15. 0.6 x 4.3 = 2.58

16. 0.8 x 7.6 = 6.08

17. 0.1 x 4.0 = 0.40

NAME



## Multiplying Decimal Tenths

Multiply. Remember, the product of two decimals showing tenths is a decimal showing hundredths.

| | | | | |
|---|---|---|---|---|
| 1. 6.2 (tenths) × 8.7 (tenths) = 53.94 (hundredths) | 2. 1.6 (tenths) × 2.6 (tenths) = 4.16 (hundredths) | 3. 2.5 × 3.9 = 9.75 | 4. 12.3 × 6.3 = 77.49 | 5. 30.7 × 1.4 = 42.98 |
| 6. 8.5 × 4.6 = 39.10 | 7. 1.9 × 5.5 = 10.45 | 8. 6.1 × 3.7 = 25.57 | 9. 3.7 × 2.9 = 10.73 | 10. 2.5 × 1.7 = 4.25 |
| 11. 10.9 × 8.4 = 91.56 | 12. 25.8 × 5.8 = 149.64 | 13. 39.8 × 2.1 = 83.58 | 14. 78.3 × 23.6 = 1847.88 | 15. 31.4 × 49.7 = 1560.58 |

## Practice

Solve. Show your work.

1. Mrs. Wilmot wants to drive from Regina to Edmonton. This is about 12.5 cm on her map. Each centimetre represents 60 km. What is the actual distance? 750 km

2. The 7th grade class is on a bus trip to Montreal. The driver hopes to cover the distance of 280 km in 5 h. What speed will the driver have to average? 56 km/h

3. A gold plate for a trophy is 3.4 cm wide and 5.8 cm long. What is its area? 19.72 $cm^2$

4. Al buys 20 boxes of tissues, each with 280 tissues. How many tissues is this? 5600

5. Food for the class cookout cost $66.27. Paper goods were $16.71. Rental chairs cost $15.00. Other expenses were $4.68. What was the total cost? $102.66

6. Donna buys ribbons for a track meet. They cost $15.39. She pays with two 10-dollar bills. How much change will she receive? $4.61

NAME _____

## Practice

Perform the indicated operation.

1. $27.402 + 8.619 = 36.021$

2. $704 - 216 = 488$

3. $3\overline{)4876} = 1625 \text{ R}1$

4. $4217 \times 38 = 160\,246$

5. $\$42.61 + 27.38 + 9.04 = \$79.03$

6. $7.516 \times 3 = 22.548$

7. $400 \times 1.2 = 480.0$

8. $4.21 - 1.37 = 2.84$

9. $271 \times 304 = 82\,384$

10. $6\overline{)841} = 140 \text{ R}1$

11. $12 \times 15 \times 29 = 5220$

12. $48\,102 - 6\,734 = 41\,368$

13. $1906 \div 7 = 272 \text{ R}2$

14. $481 + 47 + 89 = 617$

15. $7.461 - 2.389 = 5.072$

16. $210\,437 - 46\,895 = 163\,542$

Solve. Show your work.

17. A rectangle is 4.5 cm wide. Its length is 8.3 cm. Find its perimeter. 25.6 cm

18. Dr. Nelson has a bottle with 68 mL of medicine. Each dose is 2 mL. How many doses are there? 34

19. One stack of boards has 10 boards each 7.7 cm thick. Another has 10 boards each 1.4 cm thick. What is the difference in height of the two stacks? 6.3 cm

20. The rows of corn in a garden are 0.8 m apart. What is the distance between the tenth and fifteenth rows? 4 m

21. England is 6454 km by ship from Thunder Bay, Ontario. It is 4668 km from Churchill, Manitoba. How much shorter is the trip from Churchill? 1786 km

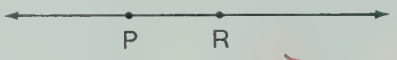
22. Anne's times for each length of the four-length swim were 27.3 s, 24.5 s, 24.6 s, and 29.7 s. What was her total time in minutes and seconds? 1 min 46.1 s

NAME

SPM5/U9/170-171

## Lines, Line Segments, and Rays

For the picture, name

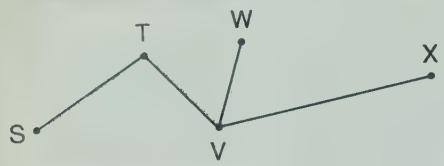



1. a line. $\overleftrightarrow{PR}$

2. a ray. $\overrightarrow{PR}$ or $\overrightarrow{RP}$

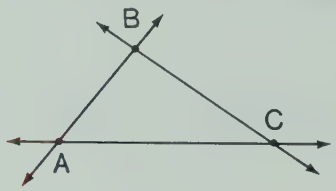
3. a line segment. $\overline{PR}$

4. How many line segments are there? Name them. 4



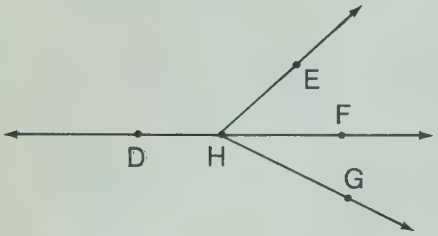

$\overline{ST}$
$\overline{TV}$
$\overline{VW}$
$\overline{VX}$

5. How many lines are there? Name them. 3




$\overleftrightarrow{AB}$
$\overleftrightarrow{BC}$
$\overleftrightarrow{AC}$

6. Name six rays shown in this picture.




$\overrightarrow{HD}$
$\overrightarrow{DH}$ (or $\overrightarrow{DF}$)
$\overrightarrow{HF}$
$\overrightarrow{FH}$ (or $\overrightarrow{FD}$)
$\overrightarrow{HE}$
$\overrightarrow{HG}$

Draw and label Pictures will vary.

7. line WG.

8. ray NM.

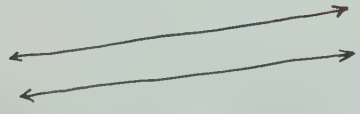
9. line segment LQ.

SPM5/U9/172-173

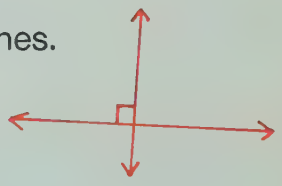
## Parallel, Intersecting, and Perpendicular Lines

Draw Pictures will vary.

1. two parallel lines.

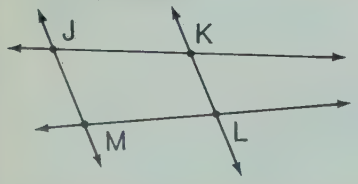


2. two perpendicular lines.

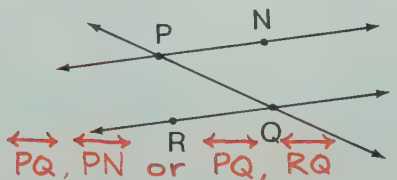


Name

3. two parallel lines. $\overleftrightarrow{JM}$, $\overleftrightarrow{KL}$

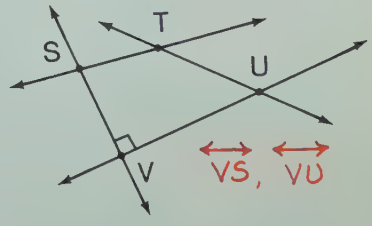



4. two intersecting lines.




$\overleftrightarrow{PQ}$, $\overleftrightarrow{PN}$ or $\overleftrightarrow{PQ}$, $\overleftrightarrow{RQ}$

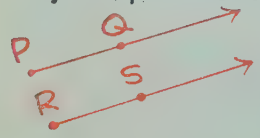
5. two perpendicular lines.



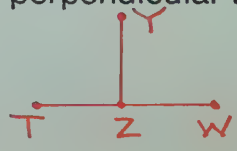

$\overleftrightarrow{VS}$, $\overleftrightarrow{VU}$

Draw Pictures will vary.

6. ray PQ parallel to ray RS.




7. line segment TW perpendicular to line segment YZ.



NAME

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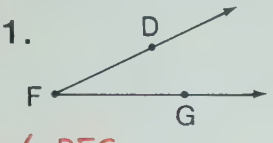
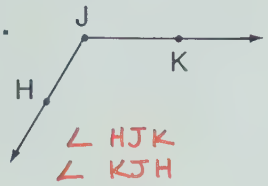
## Angles

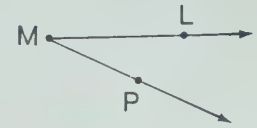
Write two names for each angle shown.

1. 

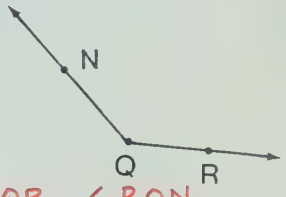

∠ DFG
∠ GFD

2. 


∠ HJK
∠ KJH

3. 


∠ LMP
∠ PML

4. 

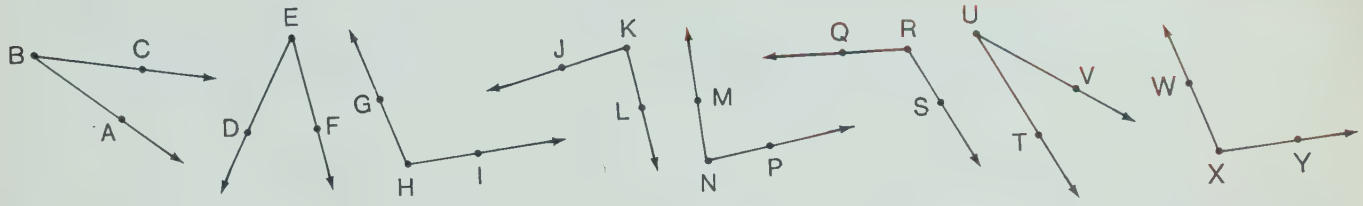

∠ NQR, ∠ RQN

Use tracing paper.

5. Test whether the angles in Exercises 1 and 3 are congruent.
A tracing of one matches the other. Yes

6. Test whether the angles in Exercises 2 and 4 are congruent. No

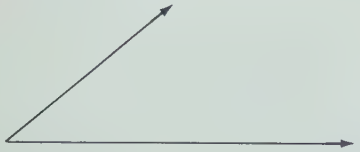
7. Name three pairs of congruent angles. ∠ ABC, ∠ TUV; ∠ GHI, ∠ WXY; ∠ JKL, ∠ MNP

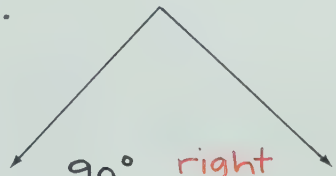


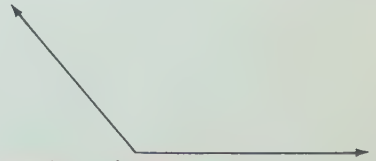

SPM5/U9/176-177

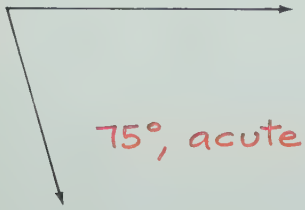
## Measuring Angles

Measure the angle. Is the angle acute, right, or obtuse?

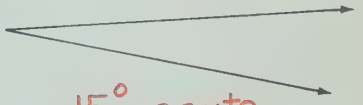
1. 
40°, acute

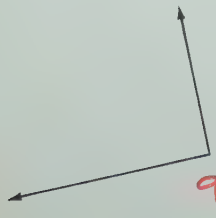
2. 
90°, right

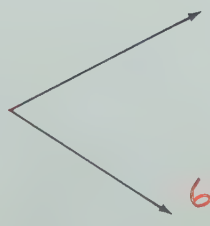
3. 
130°, obtuse

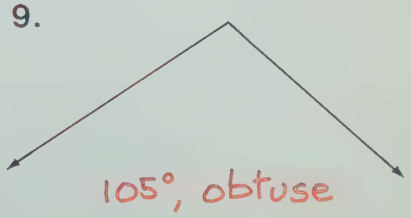
4. 
75°, acute

5.
150°, obtuse

6. 
15°, acute

7. 
90°, right

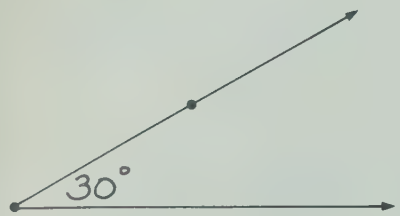
8. 
60°, acute

9. 
105°, obtuse

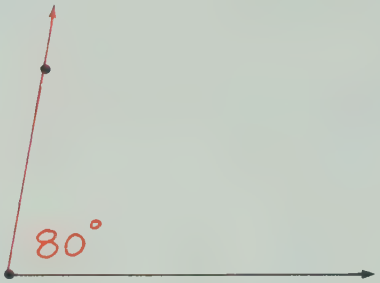
## Drawing Angles

Use a protractor. Draw an angle that measures

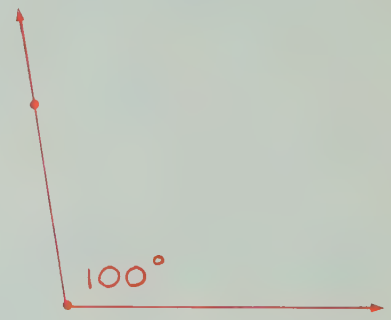
1. 30°.




2. 80°.

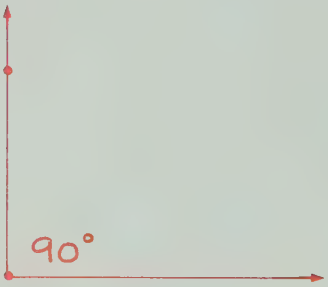



3. 100°.

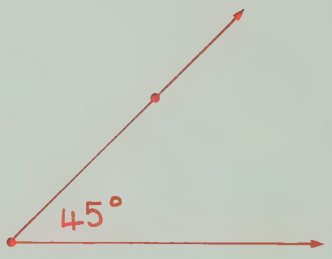



4. 150°.

5. 90°.

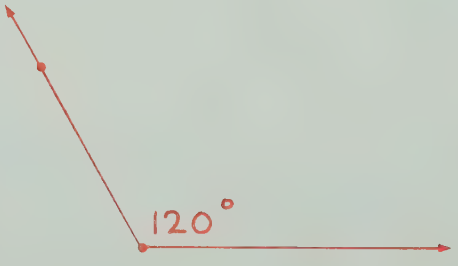



6. 45°.

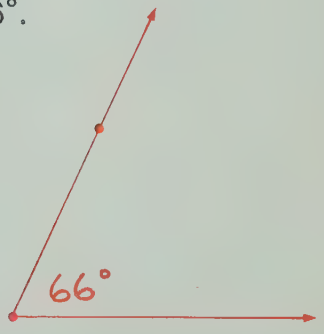



7. 10°.

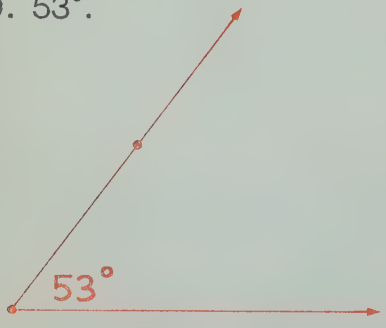
8. 120°.



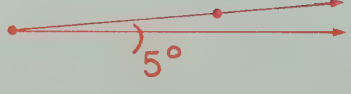

9. 66°.



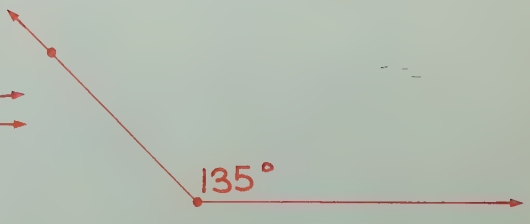

10. 53°.




11. 5°.



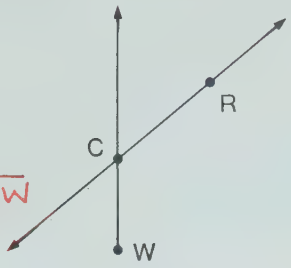

12. 135°.



NAME

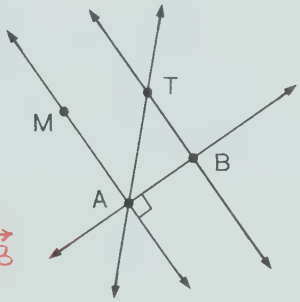
## Practice

For the picture, name




1. a line. $\overleftrightarrow{CR}$
2. two line segments. $\overline{CR}$, $\overline{CW}$
3. three rays. $\overrightarrow{CR}$, $\overrightarrow{WC}$, $\overrightarrow{RC}$

For the picture, name

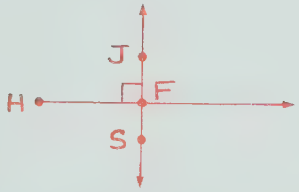



4. two lines that are parallel. $\overleftrightarrow{AM}$, $\overleftrightarrow{BT}$
5. two lines that intersect. $\overleftrightarrow{AM}$, $\overleftrightarrow{AB}$
(or $\overleftrightarrow{AM}$, $\overleftrightarrow{AT}$; $\overleftrightarrow{AB}$, $\overleftrightarrow{AT}$; $\overleftrightarrow{AB}$, $\overleftrightarrow{BT}$; $\overleftrightarrow{AT}$, $\overleftrightarrow{BT}$)
6. two lines that are perpendicular. $\overleftrightarrow{AM}$, $\overleftrightarrow{AB}$

Draw Pictures will vary.

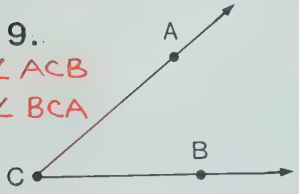
7. line segment YD parallel to line segment XE.

8. ray HF perpendicular to line JS.

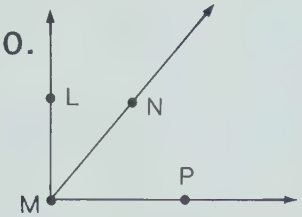



Write two names for each angle shown.

9. $\angle ACB$, $\angle BCA$



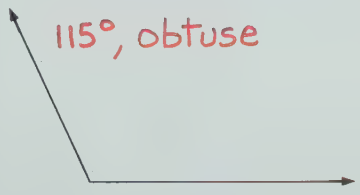

10. $\angle LMN$, $\angle NML$, $\angle NMP$, $\angle PMN$, $\angle LMP$, $\angle PML$




11. Which two angles in Exercises 9 and 10 are congruent?
$\angle ACB$, $\angle LMN$

Use a protractor. Measure each angle.
Tell whether the angle is acute, right, or obtuse.

12. 115°, obtuse

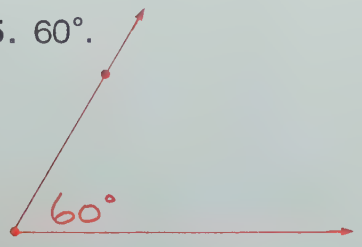


13. 80°, acute

14. 90°, right

Use a protractor. Draw an angle that measures

15. 60°.




16. 145°.

17. 8°.

NAME

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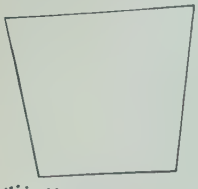
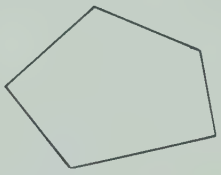
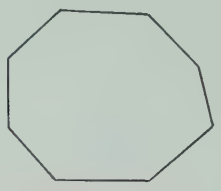
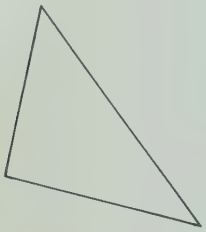
## Polygons

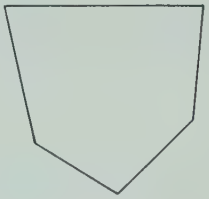
Tell whether the polygon is a triangle, a quadrilateral, a pentagon, a hexagon, or an octagon.

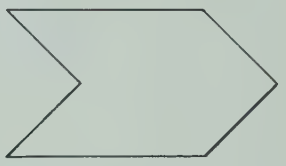
1. 
4 sides quadrilateral

2. 
5 sides pentagon

3. 
octagon

4. 
triangle

5. 
pentagon

6. 
hexagon

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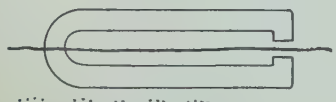
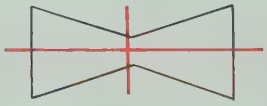
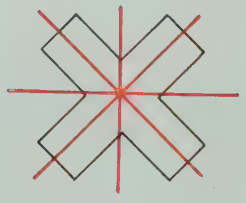
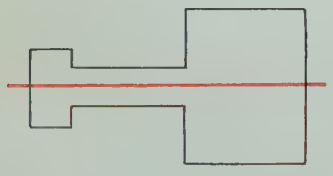
## Line Symmetry

Draw, if possible, a line of symmetry for each picture. Use tracing paper if needed.

1. 
The top part matches the bottom part.

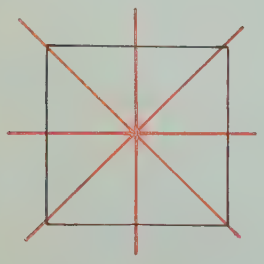
2. 
Is the shape formed by two parts that match?

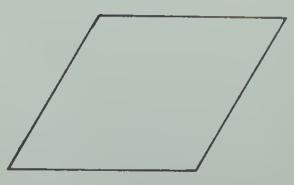
3. 

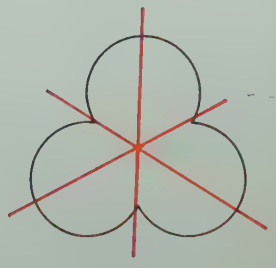
4. 

5.

6.
no line of symmetry

7. 

8. 
no line of symmetry

9. 

NAME

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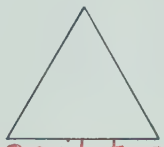
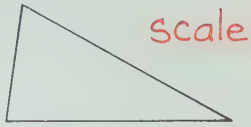
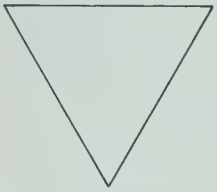
## Triangles

Use tracing paper. Is the triangle scalene, isosceles, or equilateral?

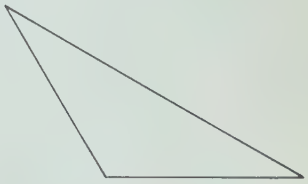
1.
two sides the same length
isosceles

2. 
all three sides the same length
equilateral

3. 
scalene

4. 
equilateral

5.
scalene

6. 
isosceles

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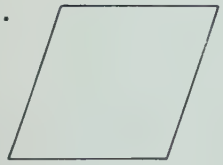
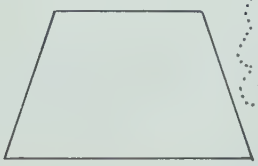
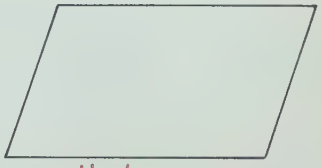
## Quadrilaterals

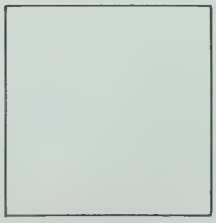
Which word best describes each quadrilateral:
trapezoid, parallelogram, rhombus, rectangle, or square.
Use tracing paper if needed.

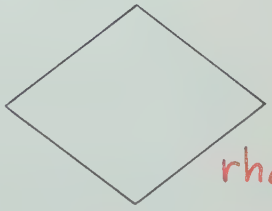
1. 
four sides the same length, no right angle
rhombus

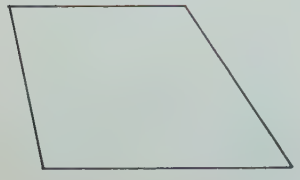
2. 
one pair of parallel sides
trapezoid

3. 
parallelogram

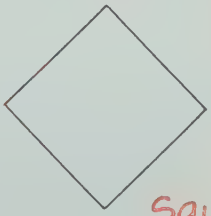
4.
rectangle

5. 
square

6. 
rhombus

7. 
trapezoid

8.
parallelogram

9. 
square

NAME

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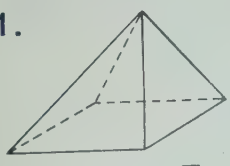
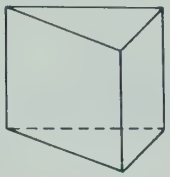
## Pyramids and Prisms

Name the solid. Give the number of vertices, edges, and faces.

1. 

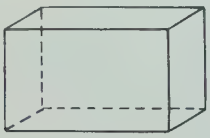

square pyramid
5 vertices
8 edges
5 faces

2. 

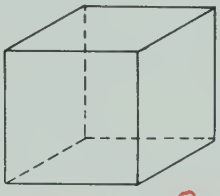

triangular prism
6 vertices
9 edges
5 faces

3.

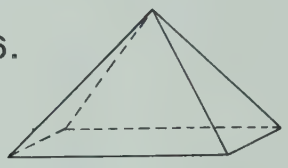
triangular pyramid
4 vertices
6 edges
4 faces

4. 

rectangular prism
8 vertices
12 edges
6 faces

5. 

cube
8 vertices
12 edges
6 faces

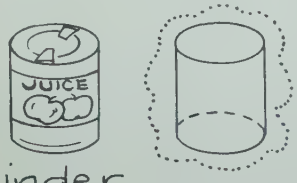
6. 

rectangular pyramid
5 vertices
8 edges
5 faces

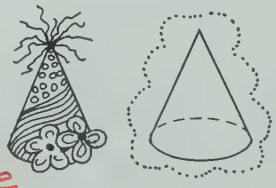
SPM5/U9/190

## Cylinders, Spheres, and Cones

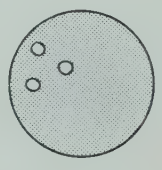
Does the shape suggest a cylinder, a sphere, or a cone?

1. 


cylinder

2. 

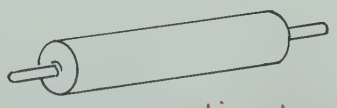
cone

3. 

sphere

4.

sphere

5. 

cylinder

6.

cone

7.

cylinder

8.

sphere

9.

cone

NAME _____

## Practice

Perform the indicated operation.

1. $\begin{array}{r} 274 \\ 906 \\ +\ 283 \\ \hline 1463 \end{array}$

2. $\begin{array}{r} 7006 \\ -\ 218 \\ \hline 6788 \end{array}$

3. $\begin{array}{r} 4.3 \\ \times 7.9 \\ \hline 33.97 \end{array}$

4. $\begin{array}{r} \$16.05 \\ -\ 9.70 \\ \hline \$6.35 \end{array}$

5. $3\overline{)26\,040}$ = 8680

6. $\begin{array}{r} 2471 \\ \times\ 24 \\ \hline 59\,304 \end{array}$

7. $\begin{array}{r} 42.39 \\ 16.71 \\ +\ 21.04 \\ \hline 80.14 \end{array}$

8. $\begin{array}{r} 4.761 \\ -3.029 \\ \hline 1.732 \end{array}$

9. $7\overline{)278}$ = 39 R5

10. $\begin{array}{r} 5.3 \\ \times 0.6 \\ \hline 3.18 \end{array}$

11. $7 \times 13 \times 281$ = 25 571

12. $9.48 - 0.75$ = 8.73

13. $\$19.46 + \$23.77$ = \$43.23

14. $600 \times 18$ = 10 800

15. $35\,879 \div 4$ = 8969 R3

16. $23 + 418 + 2791$ = 3232

Solve. Show your work.

17. How many square centimetres are there in a square that is 2.5 cm on each side? $6.25\ cm^2$

18. Mrs. Bitteman hires Lucienne to work for 48 h at \$2.75 per hour. How much money will she make? \$132.00

19. The Heberts plan a trip to Moncton in June. The distance is about 2148 km. They plan to spend 4 d driving. About how far should they drive each day? 537 km

20. The bolt Mr. Squire bought is 10.4 cm long. The bolt he needs is 11.2 cm long. How much too short is the one he bought? 0.8 cm

21. Amuk has saved \$11.50. The baseball glove he wants is \$13.49. How much more does Amuk need to save? \$1.99

22. The daily temperatures at noon for one 4 d period were 28°C, 19°C, 25°C, and 24°C. Find the average noon temperature. 24° C

NAME

SPM5/U10/194-195

## Dividing by a One-Digit Number

Divide.

1. 185 R2
   8)1482
   8 ← 8 x 1
   68
   64 ← 8 x 8
   42
   40 ← 8 x 5
   2

2. 835 R2
   4)3342
   32 ← 4 x 8
   14
   12
   22
   20
   2

3. 424 R1
   5)2121

4. 884
   6)5304

5. 92 R4
   7)648

6. 1386 R2
   3)4160

7. 633
   9)5697

8. 7527 R3
   8)60 219

SPM5/U10/196-197

## Zeros in the Quotient

Divide.

1. 406
   4)1624
   16 ← 4 x 4
   024
   24 ← 4 x 6
   0

2. 504
   5)2520
   25 ← 5 x 5
   020
   20
   0

3. 903
   2)1806

4. 703
   6)4218

5. 303 R1
   5)1516

6. 701 R3
   4)2807

7. 702
   7)4914

8. 1055
   8)8440

9. 8003
   3)24 009

10. 2209
    9)19 881

11. 7060 R2
    9)63 542

12. 6010
    6)36 060

NAME

SPM5/U10/199

## Dividing Evenly by a Multiple of 10

Divide.

| | | | |
|---|---|---|---|
| 1. 50)4500 → 90; 450 ← 50 x 9; 00 | 2. 70)4900 → 70; 490 ← 70 x 7; 00 | 3. 60)4200 → 70 | 4. 40)32 000 → 800 |
| 5. 30)2400 → 80 | 6. 70)6300 → 90 | 7. 80)560 → 7 | 8. 20)6000 → 300 |
| 9. 40)16 000 → 400 | 10. 90)7200 → 80 | 11. 60)12 000 → 200 | 12. 80)1600 → 20 |

SPM5/U10/200-201

## Dividing by a Multiple of 10

Divide.

| | | | |
|---|---|---|---|
| 1. 40)1700 → 42 R20; 160 ← 40 x 4; 100; 80 ← 40 x 2; 20 | 2. 70)2200 → 31 R30; 210 ← 70 x 3; 100; 70; 30 | 3. 50)2915 → 58 R15 | 4. 20)4520 → 226 |
| 5. 70)4562 → 65 R12 | 6. 50)4690 → 93 R40 | 7. 60)1023 → 17 R3 | 8. 80)13 490 → 168 R50 |
| 9. 30)1006 → 33 R16 | 10. 90)43 768 → 486 R28 | 11. 40)32 640 → 816 | 12. 30)24 210 → 807 |

NAME _____

## Practice

Perform the indicated operation.

1. $2.719 - 1.834 = 0.885$

2. $4.8 \times 6.9 = 33.12$

3. $30\overline{)42\,731} = 1424$ R11

4. $\$41.60 + 23.75 + 19.93 = \$85.28$

5. $4\overline{)8426} = 2106$ R2

6. $5.731 \times 9 = 51.579$

7. $73.61 - 24.95 = 48.66$

8. $40\overline{)163\,200} = 4080$

9. $768 + 2190 + 431 = 3389$

10. $200 \times 13 = 2600$

11. $6 \times 14 \times 38 = 3192$

12. $27\,594 \div 20 = 1379$ R14

13. $8 \times 3.647 = 29.176$

14. $27\,153 \div 3 = 9051$

15. $2741 + 186 = 2927$

16. $\$9718 - \$2134 = \$7584$

Solve. Show your work.

17. It is costing the zoo $41.38 each month to feed its wombat. How much will 12 months of food cost? $\$496.56$

18. Today the car is worth $1995. When new it cost $5875. How much has its value decreased? $\$3880$

19. The masses of 5 boys are 44 kg, 30 kg, 37 kg, 41 kg, and 43 kg. What is the average mass of the boys? 39 kg

20. What is the area of a tennis court which is 18 m wide and 36 m long? $648\ m^2$

21. Sarah Kwon is in charge of 80 newspaper carriers. Her carriers deliver about 4400 papers. She tries to keep the sizes of the routes about equal. About how many newspapers does each carrier deliver? 55

22. Shin took 1080 pictures using 30 rolls of film. Each roll of film had the same number of pictures. How many pictures were from each roll? 36

NAME

SPM5/U10/202-203

## Dividing by a Two-Digit Number

Divide.

1. 52)2147 — 41 R15
   208
   67
   52
   15

2. 63)3452 — 54 R50
   315
   302
   252
   50

3. 51)6528 — 128

4. 71)6710 — 94 R36

5. 81)851 — 10 R41

6. 33)6980 — 211 R17

7. 93)4397 — 47 R26

8. 62)5332 — 86

9. 42)15 918 — 379

10. 23)32 546 — 1415 R1

SPM5/U10/204-205

## Rounding the Divisor

Divide.

1. 62)4495 — 72 R31
   434
   155
   124
   31

2. 57)1352 — 23 R41
   114
   212
   171
   41

3. 89)5384 — 60 R44

4. 31)4233 — 136 R17

5. 47)324 — 6 R42

6. 78)4556 — 58 R32

7. 38)213 — 5 R23

8. 41)6598 — 160 R38

9. 87)210 — 2 R36

10. 18)80 431 — 4468 R7

11. 23)35 420 — 1540

12. 66)49 723 — 753 R25

NAME

SPM5/U10/206-207

## Dividing by a Two-Digit Number

Divide.

| | | | |
|---|---|---|---|
| not 4 39 R10<br>1. 72)2818<br>216<br>658<br>648<br>10 | not 5 62 R50<br>2. 57)3584<br>342<br>164<br>114<br>50 | 29 R5<br>3. 53)1542 | 62<br>4. 46)2852 |
| 47 R15<br>5. 21)1002 | 79<br>6. 17)1343 | 79<br>7. 73)5767 | 72 R6<br>8. 38)2742 |
| 71 R59<br>9. 67)4816 | 676<br>10. 94)63 544 | 71 R40<br>11. 88)6288 | 485<br>12. 52)25 220 |

SPM5/U10/208-209

## Estimating the Quotient

Estimate each quotient.
Then divide to find the quotient.

| | | |
|---|---|---|
| 18 R68 20<br>1. 73)1382 70)1400<br>73<br>652<br>584<br>68<br>Estimate first. Then divide. | 63 R9 60<br>2. 38)2403 40)2400<br>228<br>123<br>114<br>9<br>Estimate first. Then divide. | 50<br>3. 92)4613 90)4600<br>50 R13 |
| 80<br>4. 69)5776 70)5800<br>19 R45 | 20<br>5. 52)1033 50)1000<br>19 R45 | 600<br>6. 68)41 820 70)42000<br>615 |

NAME _____

## Practice

Perform the indicated operation.

1. $\begin{array}{r} 30\,701 \\ -\ 4\,682 \\ \hline 26\,019 \end{array}$

2. $\begin{array}{r} \$47.88 \\ \times\ 16 \\ \hline \$766.08 \end{array}$

3. $60\overline{)13\,980}$ → 233

4. $\begin{array}{r} 250 \\ 4297 \\ +\ 16 \\ \hline 4563 \end{array}$

5. $42\overline{)4376}$ → 104 R8

6. $\begin{array}{r} 7.913 \\ -2.824 \\ \hline 5.089 \end{array}$

7. $\begin{array}{r} 84.68 \\ +\ 19.75 \\ \hline 104.43 \end{array}$

8. $\begin{array}{r} 27\,486 \\ \times\ 7 \\ \hline 192\,402 \end{array}$

9. $\begin{array}{r} 42\,138 \\ 16\,912 \\ +\ 8\,777 \\ \hline 67\,827 \end{array}$

10. $18\overline{)12\,580}$ → 698 R16

11. $15 \times 23 \times 81$ → 27 945

12. $6.3 \times 7.5$ → 47.25

13. $2746 + 8271 + 4903$ → 15 920

14. $8243 \div 23$ → 358 R9

15. $204.16 - 76.38$ → 127.78

16. $\$15.00 + \$8.43$ → \$23.43

Solve. Show your work.

17. The area of a rectangular playing field is 1170 $m^2$. The width is 26 m. What is the length? 45 m

18. Each of 6 girls has 2 paper routes. Each route has 35 customers. How many customers are there in all? 420

19. In the 400-m race, the winner's time was 53.7 s. The second-place runner had a time of 57.5 s. By how many seconds did the winner defeat the second-place runner? 3.8 s

20. Three boys contributed to a charity. One gave \$0.75. Another gave \$1.20. The third gave \$2.43. What was their average donation? \$4.38

21. Pita said the sum of 1396, 4238, and 716 is 6360. By how much was he wrong? 10

22. The width of a rectangle is 48 m. The length is 200 m. Find the area. 9600 $m^2$

NAME

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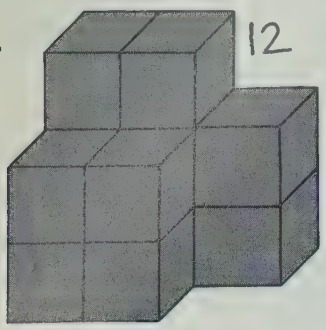
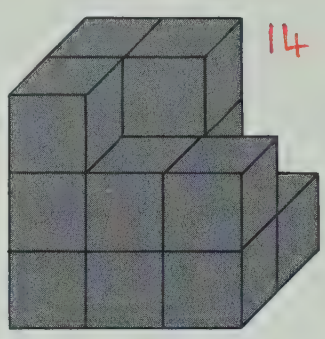
## Counting Cubes

Count the cubes in each shape.

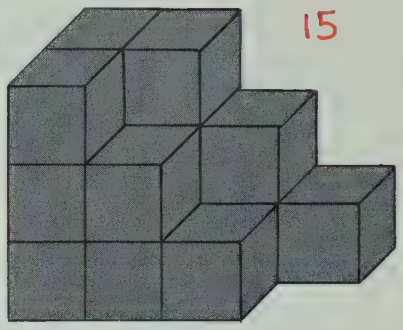
1. 12



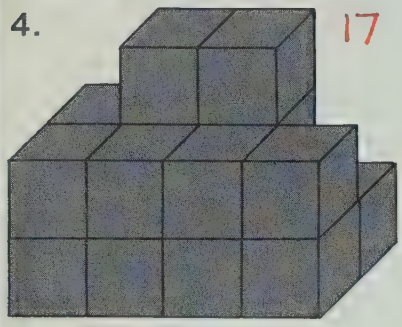
2. 14



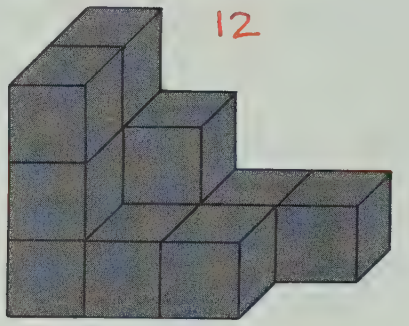
3. 15



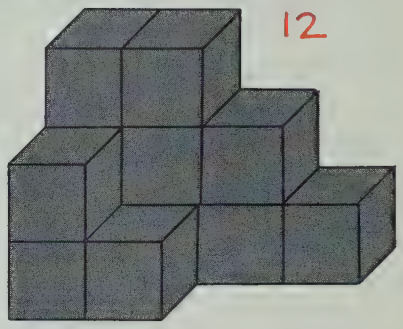
4. 17



5. 12



6. 12

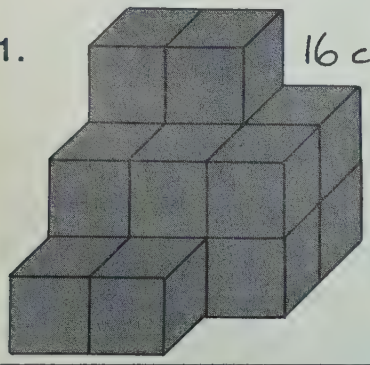


SPM5/U11/217

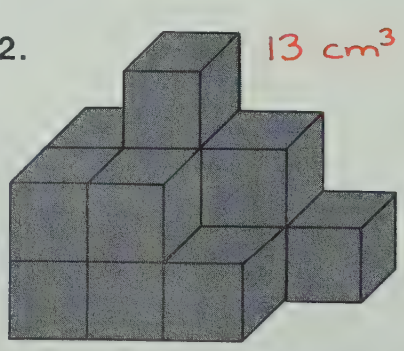
## Volume in Cubic Centimetres

Find the volume in cubic centimetres.

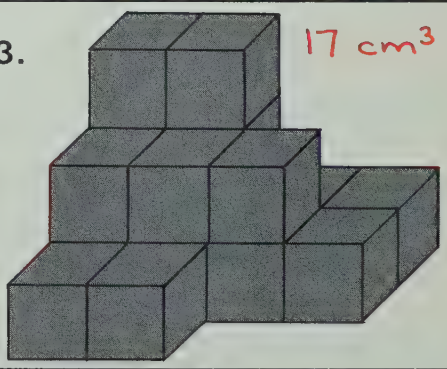
1. 16 $cm^3$



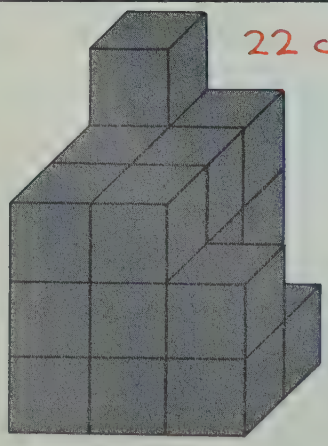
2. 13 $cm^3$



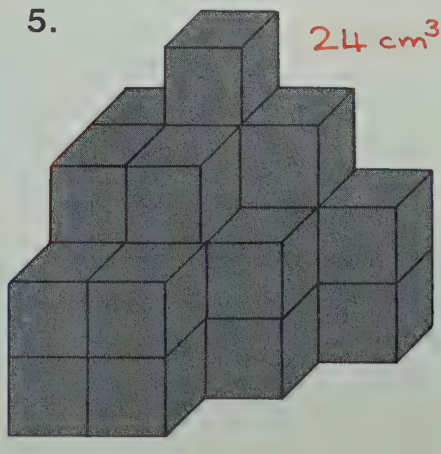
3. 17 $cm^3$



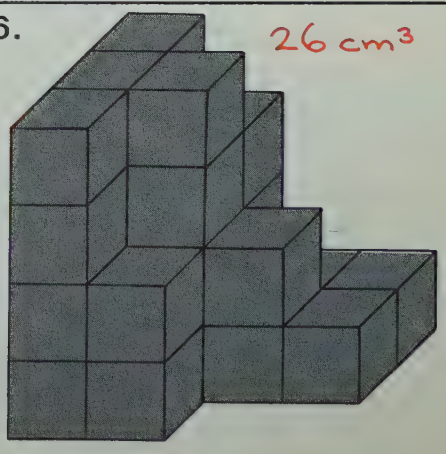
4. 22 $cm^3$



5. 24 $cm^3$



6. 26 $cm^3$

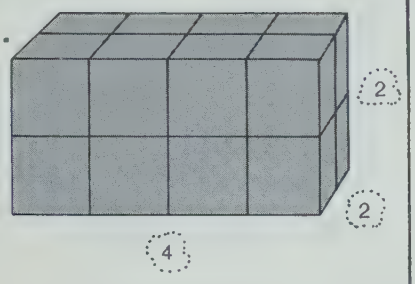


NAME

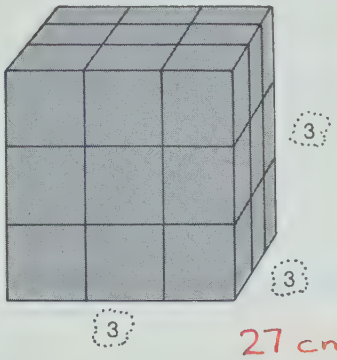


## Volume of a Rectangular Prism

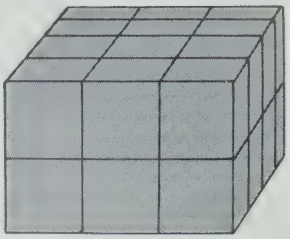
Use multiplication to find the volume in cubic centimetres.

1. 

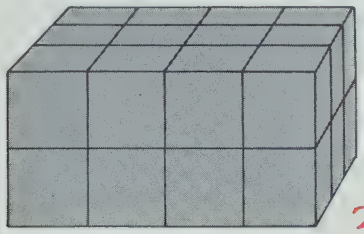

$4 \times 2 \times 2 = 16$ $16\ cm^3$

2. 

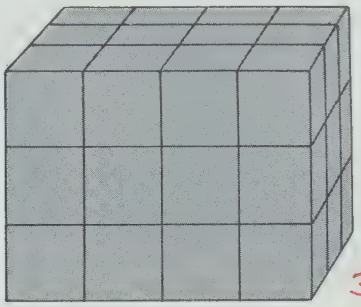

$27\ cm^3$

3. 

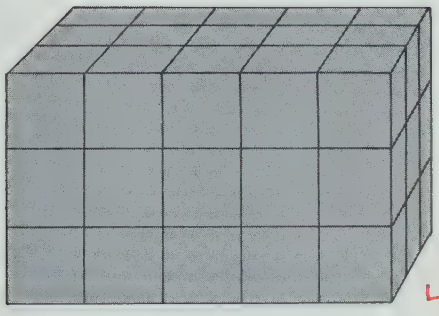
$24\ cm^3$

4. 

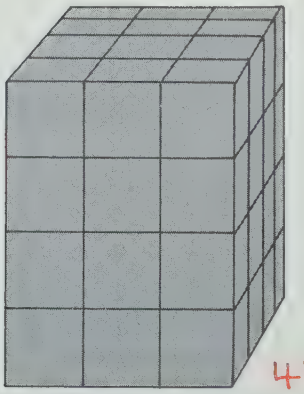
$24\ cm^3$

5. 

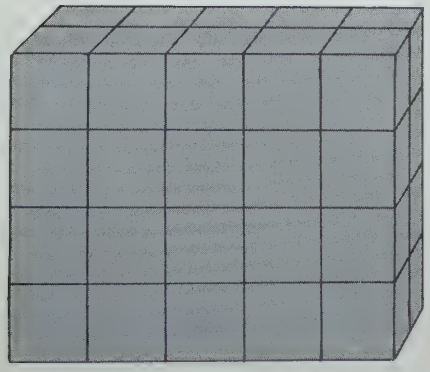
$36\ cm^3$

6. 

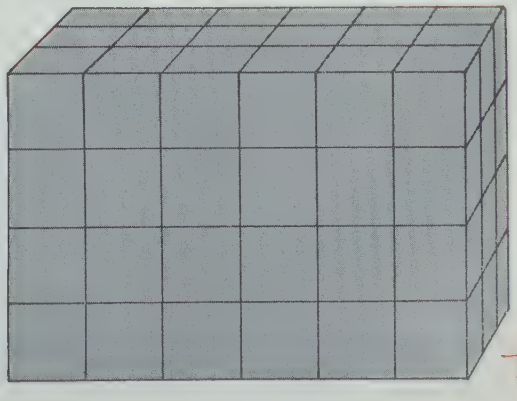
$45\ cm^3$

7. 

$48\ cm^3$

8. 

$40\ cm^3$

9. 

$72\ cm^3$

NAME

SPM5/U11/220-221

## Cubic Centimetres and Litres

Complete.

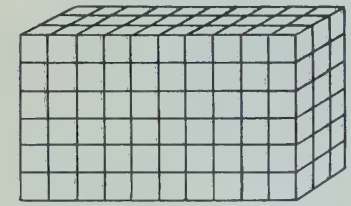
| | | |
|---|---|---|
| 1. 6 L take the same space as 6000 $cm^3$. (1 L fills 1000 $cm^3$.) | 2. 2500 $cm^3$ take the same space as 2.5 L. | 3. 0.9 L take the same space as 900 $cm^3$. |

4. 15 000 $cm^3$ take the same space as 15 L.

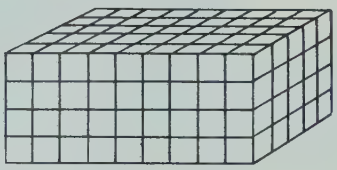
5. 10.5 L take the same space as 10 500 $cm^3$.

6. 4208 $cm^3$ take the same space as 4.208 L.

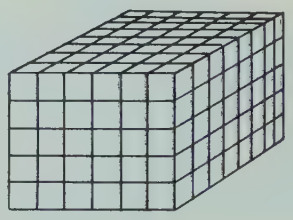
Each small cube represents one centimetre cube. Give the amount of space in all.

7. 

180 $cm^3$ or 0.18 L

8. 

180 $cm^3$ or 0.18 L

9. 

240 $cm^3$ or 0.24 L

SPM5/U11/222-223

## Capacity in Litres and Millilitres

Complete.

| | | |
|---|---|---|
| 1. 7000 mL = 7 L (1000 mL = 1 L) | 2. 8.9 L = 8900 mL (1 L = 1000 mL) | 3. 43 000 mL = 43 L |

4. 5 L = 5000 mL

5. 3000 mL = 3 L

6. 2.26 L = 2260 mL

7. 600 mL = 0.6 L

8. 0.3 L = 300 mL

9. 1250 mL = 1.25 L

Choose the best estimate, 1 mL, 500 mL, or 1 L, for

10. the amount of milk in a large drinking glass. 500 mL

11. the amount of medicine in a medicine dropper. 1 mL

12. the amount of coffee in a coffee pot. 1 L

13. the amount of water frozen in a large hailstone. 1 mL

14. the amount of soup in a large soup bowl. 500 mL

15. the amount of water in a small fish bowl. 1 L

NAME



## Cubic Centimetres and Millilitres

Complete.

1. 48 $cm^3$ take the same space as 48 mL.

2. 350 mL take the same space as 350 $cm^3$.

3. 2750 mL take the same space as 2750 $cm^3$.

$1\ cm^3$ and 1 mL take the same amount of space.

4. 9 mL take the same space as 9 $cm^3$.

5. 100 $cm^3$ take the same space as 100 mL.

6. 5050 mL take the same space as 5050 $cm^3$.

Complete each chart.

| | $cm^3$ | mL | L |
|---|---|---|---|
| 7. | 6000 | 6000 | 6 |
| 8. | 4400 | 4400 | 4.4 |
| 9. | 15 500 | 15 500 | 15.5 |
| 10. | 800 | 800 | 0.8 |
| 11. | 3700 | 3700 | 3.7 |
| 12. | 490 | 490 | 0.49 |
| 13. | 10300 | 10300 | 10.3 |
| 14. | 17 250 | 17250 | 17.25 |
| 15. | 3060 | 3060 | 3.06 |

## Practice

Solve. Show your work.

1. During the day, a rental agency took in $1687 and returned deposits of $593. What was its income for the day? $1094

2. The large parking lot has 780 cars in 26 rows. The rows all have the same number of cars. How many cars are in each row? 30

3. The driver of each of the 780 cars paid $2.25 to park for the day. How much did the drivers pay in all? $1755.00

4. Overtime charges for the last 3 weeks have been $378, $294, and $512. What is the total? $1184

5. Renard has a stack of chips 4.81 cm high. He removes a chip 0.35 cm thick from the stack. How high is the stack now? 4.46 cm

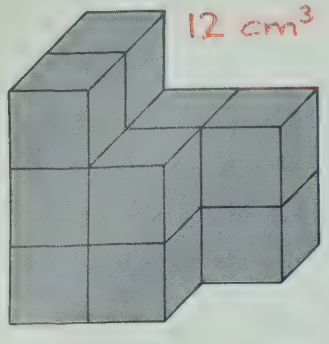
6. 2788 people entered the store. Of these, every fourth person bought a pair of jeans. How many pairs of jeans were sold? 697

NAME _____

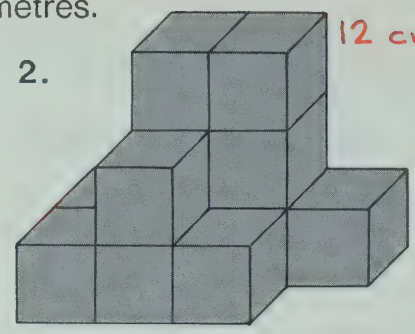
## Practice

Find the volume in cubic centimetres.

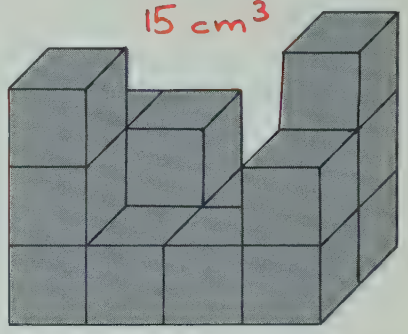
1. 12 $cm^3$



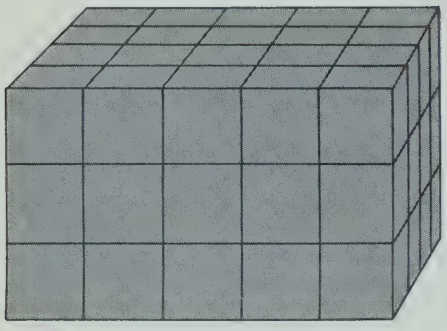
2. 12 $cm^3$



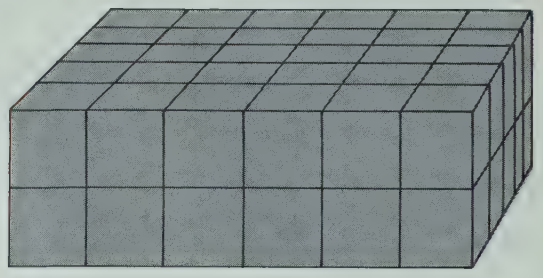
3. 15 $cm^3$



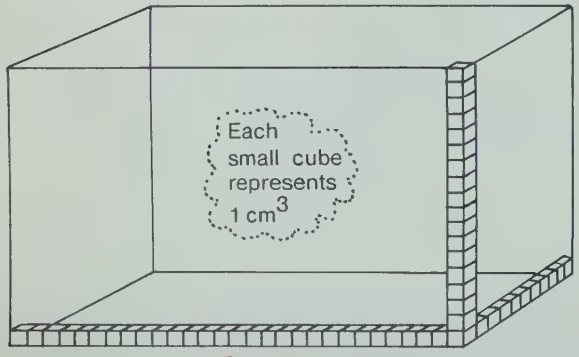
4. 60 $cm^3$



5. 60 $cm^3$

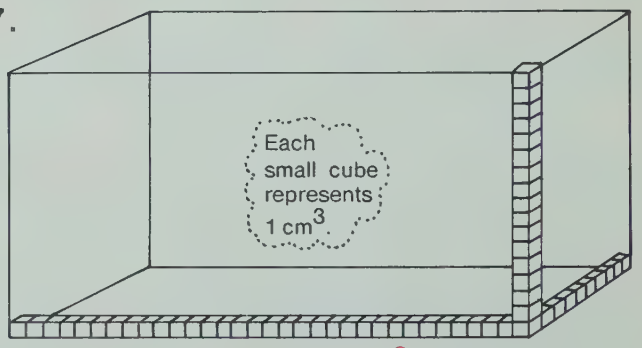


6.




5742 $cm^3$

7.




5610 $cm^3$

Complete.

8. 800 mL = 0.8 L
9. 7 L = 7000 mL
10. 2500 mL = 2.5 L
11. 2 L take the same space as 2000 $cm^3$
12. 470 $cm^3$ take the same space as 470 mL
13. 150 $cm^3$ take the same space as 0.15 L
14. 1150 mL take the same space as 1150 $cm^3$
15. 0.67 L takes the same space as 670 $cm^3$
16. 4500 $cm^3$ take the same space as 4.5 L
17. The tank in Exercise 6 holds 5742 mL or 5.742 L.
18. The tank in Exercise 7 holds 5610 mL or 5.61 L.

NAME

SPM5/U11/226-227

## Mass in Grams and Kilograms

Complete.

| | | |
|---|---|---|
| 1. 4000 g = 4 kg<br>1000 g = 1 kg | 2. 7.5 kg = 7500 g<br>1 kg = 1000 g | 3. 300 g = 0.3 kg |
| 4. 4.8 kg = 4800 g | 5. 3500 g = 3.5 kg | 6. 0.9 kg = 900 g |
| 7. 1750 g = 1.75 kg | 8. 2.53 kg = 2530 g | 9. 5005 g = 5.005 kg |

Choose the best estimate, 1 g, 500 g, or 1 kg for

| | | |
|---|---|---|
| 10. the mass of a deflated balloon. 1 g | 11. the mass of a bar of soap. 500 g | 12. the mass of a baseball glove. 1 kg |
| 13. the mass of the ice cubes in an ice cube tray. 500 g | 14. the mass of a shoelace tip. 1 g | 15. the mass of your shoe. 500 g |

SPM5/U11/228-229

## The Mass of Water

Complete.

| | | |
|---|---|---|
| 1. The mass of 750 mL of water is 750 g.<br>The mass of 1 mL of water is 1 g. | 2. The mass of 3000 mL of water is 3 kg. | 3. The mass of 8 L of water is 8 kg. |
| 4. The mass of 1080 mL of water is 1080 g. | 5. The mass of 0.6 L of water is 0.6 kg. | 6. The mass of 3630 mL of water is 3.63 kg. |
| 7. The mass of 1.88 L of water is 1.88 kg. | 8. The mass of 980 mL of water is 0.98 kg. | 9. The mass of 76 mL of water is 76 g. |

10. The volume of a container is 2500 $cm^3$. To fill the container 2500 mL, or 2.5 L, of water are needed. The mass of the water would be 2500 g, or 2.5 kg.

11. The mass of the water in a container is 5.32 kg. The container holds 5.32 L or 5320 $cm^3$.

NAME

SPM5/U11/230-231

## The 24-Hour Clock

Write the time shown on the clock.

1.

when school is over. 15:05:52 (after noon!)

2.

when it is time to get up. 07:25:45 (before noon!)

3.

when it is time for school recess. 10:15:05

4.

22:15:05

when the "late news" is on TV.

5.

11:47:33

before lunch.

6.

20:37:12

when I have my homework finished

Complete.

7. When it is 2 h 10 min 40 s after 11:30:10, the time is 13:40:50 .

8. When it is 6 h 16 min 23 s earlier than 22:40:30, the time is 16:24:07 .

SPM5/U11/232

## Numeric Dating

Write the date in another way.

1. 1983 08 07 (The 8th month is August.) August 7, 1983

2. July 12, 1932 (July is the ___ month.) 1932 07 12

3. 1907 12 10 December 10, 1907

4. September 23, 1945 1945 09 23

5. 1929 01 30 January 30, 1929

6. March 28, 1962 1962 03 28

7. 1910 11 12 November 12, 1910

8. February 29, 1984 1984 02 29

9. 1999 10 31 October 31, 1999

10. April 1, 2000 2000 04 01

11. 1575 06 06 June 6, 1575

12. May 13, 1820 1820 05 13

NAME _____

## Practice

Perform the indicated operation.

1. 234.7 + 819.6 + 50.1 = 1104.4

2. $17.02 − 9.46 = $7.56

3. 23.7 × 5 = 118.5

4. 7)3104 = 443 R3

5. $42.68 × 3 = $128.04

6. 8.962 − 1.378 = 7.584

7. $27 586 + 19 473 = $47 059

8. 31)846 = 27 R9

9. 0.76 × 3.9 = 2.964

10. 54.600 − 29.831 = 24.769

11. 279 × 16 = 4464

12. 62 381 ÷ 5 = 12476 R1

13. $278 + $49 + $1031 = $1358

14. 12 × 137 × 4 = 6576

15. 18.91 − 5.62 = 13.29

16. 4231 ÷ 20 = 211 R11

Solve. Show your work.

17. Each small cassette holds tape for 27 min of play. How many minutes would 13 small cassettes hold? 351 min

18. The case of motor oil costs $32.40. There are 24 cans in the case. What is the cost of each can? $1.35

19. 5638 pairs of shoes are stored in the warehouse. In one week 2796 pairs are shipped out. How many remain? 2842

20. Every 25th person through the turnstile at the fair will get a prize. 3756 people come to the fair. How many prizes are given away? 150

21. Sheet music for the band will cost $1.25 for each piece. The band will play 3 pieces. Each of the 35 members of the band needs a copy. How much will the sheet music cost? $131.25

22. Sol times the acts of the play. The first act takes 21 min. The second act takes 32 min. The third act takes 19 min. What is the average length of each act? 24 min

NAME

SPM5/U12/238-239

## Sharing Ones and Tenths

Divide. Remember to place the decimal point in the quotient.

| | | | |
|---|---|---|---|
| 1. $2\overline{)4.8}$ → 2.4; 4 ← 2 × 2; 08; 8 ← 2 × 4 tenths; 0 | 2. $3\overline{)6.6}$ → 2.2; 6 ← 3 × 2; 06; 6; 0 | 3. $5\overline{)5.5}$ → 1.1 | 4. $4\overline{)4.8}$ → 1.2 |

| | | | | |
|---|---|---|---|---|
| 5. $3\overline{)9.6}$ → 3.2 | 6. $4\overline{)8.4}$ → 2.1 | 7. $3\overline{)3.6}$ → 1.2 | 8. $2\overline{)4.2}$ → 2.1 | 9. $2\overline{)8.8}$ → 4.4 |

SPM5/U12/240-241

## Dividing Ones and Tenths with Regrouping

Divide.

| | | | |
|---|---|---|---|
| 1. $4\overline{)9.2}$ → 2.3; 8 ← 4 × 2; 12; 12 ← 4 × 3 tenths; 0 | 2. $6\overline{)7.8}$ → 1.3; 6 ← 6 × 1; 18; 18; 0 | 3. $3\overline{)7.5}$ → 2.5 | 4. $7\overline{)16.1}$ → 2.3 |

| | | | | |
|---|---|---|---|---|
| 5. $2\overline{)7.2}$ → 3.6 | 6. $5\overline{)8.5}$ → 1.7 | 7. $3\overline{)8.4}$ → 2.8 | 8. $4\overline{)7.6}$ → 1.9 | 9. $2\overline{)9.8}$ → 4.9 |

| | | | | |
|---|---|---|---|---|
| 10. $3\overline{)5.1}$ → 1.7 | 11. $7\overline{)32.2}$ → 4.6 | 12. $9\overline{)48.6}$ → 5.4 | 13. $8\overline{)29.6}$ → 3.7 | 14. $6\overline{)20.4}$ → 3.4 |

NAME



## Dividing Hundredths and Thousandths

Divide.

1. 1.64
   3)4.92
   3 ← 3 x 1
   19
   18 ← 3 x 6 tenths
   12
   12 ← 3 x 4 hundredths
   0

2. 1.33
   6)7.98
   6 ← 6 x 1
   19
   18
   18
   18
   0

3. 2.434
   4)9.736

4. $3.67
   2)$7.34

5. 2.98
   3)8.94

6. 1.29
   7)9.03

7. 5.6
   6)33.6

8. 2.28
   4)9.12

9. 1.16
   8)9.28

10. 1.841
    5)9.205

11. $ 2.07
    9)$18.63

12. 1.179
    8)9.432

13. $ 3.42
    7)$23.94

## Practice

Solve. Show your work.

1. Don bought 3 cans of fruit, all the same size. The total mass was 680.4 g. What was the mass of each can? 226.8 g

2. Charlotte's teacher bought 6 jars of paste for $4.68. How much was the paste per jar? $0.78

3. Crystal works as a packer at a factory. In each box she puts 12 bulbs on one layer and makes 5 layers. Then she puts 16 boxes in a carton. How many bulbs are in each carton? 960

4. Each of the 4 members of the women's relay team ran her leg of the race in 32.4 s. What was the total time in minutes and seconds? 2 min 9.6 s

NAME _____

## Practice

Perform the indicated operation.

1. 273 + 9218 + 67 = 9558

2. 27 394 × 5 = 136 970

3. $9\overline{)29.16} = 3.24$

4. 14.237 − 6.901 = 7.336

5. $3\overline{)25\,186} = 8\,395$ R1

6. \$27.34 + 49.16 + 80.08 = \$156.58

7. 47 003 − 9 285 = 37 718

8. $6\overline{)\$24.48} = \$4.08$

9. 7.86 × 8 = 62.88

10. $23\overline{)481} = 20$ R21

11. 7 × 13 × 283 = 25 753

12. 6.423 + 7.915 = 14.338

13. \$5713 − \$896 = \$4817

14. 85.6 ÷ 4 = 21.4

15. 7.3 × 8.9 = 64.97

16. 36.617 ÷ 7 = 5.231

Solve. Show your work.

17. Dominic makes a "train" of dominoes. He puts 38 dominoes end to end. Each domino is 3.18 cm long. How long is his train? 120.84 cm

18. Ginger puts a letter with a mass of 13.4 g into an envelope of mass 9.7g. What is the total mass? 23.1 g

19. A boating team hopes to travel 1980 km on a river in about 60 d. What is the average number of kilometres per day that it should plan to travel? 33 km

20. Ron's time for the four 100-m practice races he ran were 11.3 s, 12.1 s, 11.8 s, and 11.2 s. What was his average time for the 100-m race? 11.6 s

21. After the rainy season, the level of the reservoir was at the 21.46-m mark. Before the rains, the level was at the 9.78-m mark. By how much has the level increased? 11.68 m

22. On a shopping trip for new school clothes, Bette's mother spent \$27.18 for a dress and \$19.66 for shoes. She also bought 2 sweaters for \$13.50 each. How much did she spend in all? \$73.84

NAME

SPM5/U12/245

## Quotients Less Than 1

Divide.

1. $4\overline{)3.56}$ → 0.89; 32 ← 4 x 8 tenths; 36; 36 ← 4 x 9 hundredths; 0

2. $5\overline{)2.70}$ → 0.54; 25 ← 5 x 5 tenths; 20; 20; 0

3. $6\overline{)5.28}$ → 0.88

4. $9\overline{)3.33}$ → 0.37

5. $2\overline{)1.36}$ → 0.68

6. $3\overline{)\$2.01}$ → \$0.67

7. $8\overline{)3.464}$ → 0.433

8. $7\overline{)5.313}$ → 0.759

9. $9\overline{)5.481}$ → 0.609

SPM5/U12/246-247

## Using More Decimal Places

Divide. Use more zeros when needed.

1. $6\overline{)9.0}$ → 1.5; 6 ← 6 x 1; 30; 30 ← 6 x 5 tenths; 0

2. $8\overline{)6.0}$ → 0.75; 56 ← 8 x 7 tenths; 40; 40; 0

3. $2\overline{)5.9}$ → 2.95

4. $4\overline{)\$9}$ → \$2.25

5. $2\overline{)0.25}$ → 0.125

6. $5\overline{)4}$ → 0.8

7. $6\overline{)13.5}$ → 2.25

8. $4\overline{)1.8}$ → 0.45

9. $5\overline{)\$8}$ → \$1.60 (Some students may give \$1.6 as an answer.)

10. $8\overline{)\$38}$ → \$4.75

11. $5\overline{)9.2}$ → 1.84

12. $4\overline{)7}$ → 1.75

13. $5\overline{)11.1}$ → 2.22

14. $8\overline{)11}$ → 1.375

NAME



## Dividing by a Two-Digit Number

Divide.

| | | | |
|---|---|---|---|
| 1. 32)89.6 → 2.8<br>64 ← 32 x 2<br>256<br>256 ← 32 x 8<br>0 | 2. 41)229.6 → 5.6<br>205 ← 41 x 5<br>246<br>246<br>0 | 3. 39)282.75 → 7.25 | 4. 16)52.0 → 3.25 |

5. 26)27.3 → 1.05

6. 14)44.94 → 3.21

7. 32)23.04 → 0.72

8. 42)$169.68 → $4.04

6. 12)6.9 → 0.575

10. 65)47.515 → 0.731

11. 88)129.8 → 1.475

12. 96)264 → 2.75

## Practice

Solve. Show your work.

1. Uncle Jack gives his 4 nieces $5 and tells them to share equally. How much will each get? $1.25

2. In 1979, oceanographers found a ship which sank in 1812. For how many years had it been under water? 167

3. Becky lives in a big apartment complex. The Towers Building houses 815 people. The Garden Mall holds 581 people. Rose Court has 250 people. Altogether, how many live in the 3 buildings? 1646

4. Lisa measured the mass of each of 4 eggs from a nest. They were 18.3 g, 19.2 g, 17.0 g, and 18.6 g. What was the average mass? 18.275 g

NAME _____

## Practice

Perform the indicated operation.

1. 2730 + 981 + 46 = 3757

2. \$19.06 − 7.15 = \$11.91

3. $18\overline{)4.14} = 0.23$

4. $7.2 \times 4.6 = 33.12$

5. $4\overline{)6} = 1.5$

6. $\$28.31 \times 143 = \$4048.33$

7. $214.3 + 91.7 + 80.5 = 386.5$

8. $43.00 - 16.41 = 26.59$

9. $2971 \times 8 = 23\,678$

10. $15\overline{)\$35.25} = \$2.35$

11. $41 \times 30 \times 29 = 35\,670$

12. $100 \times 4.316 = 431.6$

13. $9.84 - 7.71 = 2.13$

14. $4.9 \times 7.8 = 38.22$

15. $11 \div 4 = 2.75$

16. $4913 + 8207 + 775 = 13\,895$

Solve. Show your work.

17. Mrs. Hrenko charges \$315 for each day she serves as a consultant. One job lasted 13 d. How much did Mrs. Hrenko charge? \$4095

18. The druggist divided 262 g of medicine equally among 8 bottles. How many grams of medicine were put into each bottle? 32.75 g

19. A packer puts 24 cans, each with a mass of 215 g, in a carton of mass 1200 g. What will be the total mass? 6360 g

20. Professor O'Leary bought 12 copies of the same book for \$23.76. What was the cost per book? \$1.98

21. At the bottom of the fish ladder the scientist reported 781 salmon attempting the climb. Another observer at the top reported 537 salmon arrived. How many fish failed in the attempt? 244

22. Use of the park swimming pool was 781, 1296, 1572, and 809 people for the four weekends in July. Altogether, how many people used the pool on those weekends? 4458

NAME

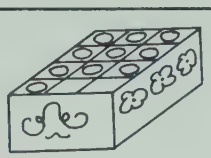


## Writing Fractions

Complete each sentence with a fraction.

1.

$\frac{3}{8}$ of the square is shaded.

2. 

$\frac{10}{12}$ of the box is filled.

3.

$\frac{2}{9}$ of the bananas are peeled.

4.

$\frac{5}{12}$ of the eggs are broken.

5.

$\frac{7}{10}$ of the faces are happy.

6.

$\frac{5}{8}$ of the pie is gone.

7. The fraction $\frac{2}{3}$ has numerator 2 and denominator 3.

8. The fraction $\frac{3}{7}$ has numerator 3 and denominator 7.

## Practice

Solve. Show your work.

1. Gil measured the length of the bar as 21.04 cm. Later Andy measured it as 21.89 cm. By how much did their measurements differ? 0.85 cm

2. 7 people in an office gave $22.75 for a gift. What was the average amount given by each? $3.25

3. The times of the four runners in the shuttle race were 12.7 s, 14.6 s, 11.1 s, and 12.3 s. What was the total team time? 50.7 s

4. This week the post office processed 138 500 pieces of mail. Last week, it processed 127 600 pieces. How many more were processed this week? 10 900

5. Together the 5 boys sold 685 newspapers. If each boy sold an equal amount, how many did each sell? 137

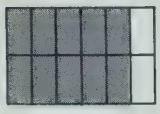
6. Tammy's test scores were 62, 87, and 91. After the 3 tests, what was her average score? 80

NAME

SPM5/U13/260-261

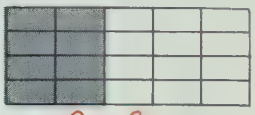
## Equivalent Fractions

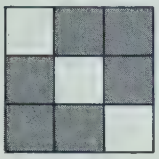
Write two equivalent fractions for each picture.

1.  $\frac{10}{12}, \frac{5}{6}$

2. $\frac{6}{8}, \frac{3}{4}$

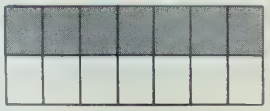
3. $\frac{3}{12}, \frac{1}{4}$

4.  $\frac{8}{20}, \frac{2}{5}$

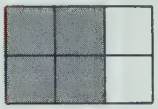
5.  $\frac{6}{9}, \frac{2}{3}$

6. $\frac{9}{15}, \frac{3}{5}$

7. $\frac{6}{18}, \frac{1}{3}$

8.  $\frac{7}{14}, \frac{1}{2}$

9. $\frac{8}{10}, \frac{4}{5}$

10.  $\frac{4}{6}, \frac{2}{3}$

11. $\frac{6}{16}, \frac{3}{8}$

12. $\frac{12}{16}, \frac{3}{4}$

SPM5/U13/262

## Finding Equivalent Fractions

Multiply or divide to find equivalent fractions.

1.

| | | | |
|---|---|---|---|
| $\frac{3}{4}$ | $\frac{6}{8}$ | $\frac{9}{12}$ | $\frac{12}{16}$ |

(3 x 2, 3 x 3, 3 x 4 / 4 x 2, 4 x 3, 4 x 4)

2.

| | | | |
|---|---|---|---|
| $\frac{72}{108}$ | $\frac{36}{54}$ | $\frac{18}{27}$ | $\frac{6}{9}$ |

(72 ÷ 2, ÷ 2, ÷ 3 / 108 ÷ 2, ÷ 2, ÷ 3)

3.

| | | | |
|---|---|---|---|
| $\frac{2}{3}$ | $\frac{4}{6}$ | $\frac{6}{9}$ | $\frac{8}{12}$ |

(2 x 2, 2 x 3, 2 x 4 / 3 x 2, 3 x 3, 3 x 4)

4.

| | | | |
|---|---|---|---|
| $\frac{3}{7}$ | $\frac{6}{14}$ | $\frac{9}{21}$ | $\frac{12}{28}$ |

(3 x 2, 3 x 3, 3 x 4 / 7 x 2, 7 x 3, 7 x 4)

5.

| | | | |
|---|---|---|---|
| $\frac{1}{4}$ | $\frac{2}{8}$ | $\frac{3}{12}$ | $\frac{4}{16}$ |

(1 x 2, 1 x 3, 1 x 4 / 4 x 2, 4 x 3, 4 x 4)

6.

| | | | |
|---|---|---|---|
| $\frac{24}{36}$ | $\frac{12}{18}$ | $\frac{6}{9}$ | $\frac{2}{3}$ |

(÷ 2, ÷ 2, ÷ 3 / ÷ 2, ÷ 2, ÷ 3)

7.

| | | | |
|---|---|---|---|
| $\frac{24}{36}$ | $\frac{8}{12}$ | $\frac{4}{6}$ | $\frac{2}{3}$ |

(÷ 3, ÷ 2, ÷ 2 / ÷ 3, ÷ 2, ÷ 2)

8.

| | | | |
|---|---|---|---|
| $\frac{2}{9}$ | $\frac{4}{18}$ | $\frac{6}{27}$ | $\frac{8}{36}$ |

(2 x 2, 2 x 3, 2 x 4 / 9 x 2, 9 x 3, 9 x 4)

9.

| | | | |
|---|---|---|---|
| $\frac{30}{60}$ | $\frac{15}{30}$ | $\frac{5}{10}$ | $\frac{1}{2}$ |

(÷ 2, ÷ 3, ÷ 5 / ÷ 2, ÷ 3, ÷ 5)

10.

| | | | |
|---|---|---|---|
| $\frac{126}{168}$ | $\frac{63}{84}$ | $\frac{21}{28}$ | $\frac{3}{4}$ |

(÷ 2, ÷ 3, ÷ 7 / ÷ 2, ÷ 3, ÷ 7)

11.

| | | | |
|---|---|---|---|
| $\frac{5}{6}$ | $\frac{10}{12}$ | $\frac{15}{18}$ | $\frac{20}{24}$ |

(5 x 2, 5 x 3, 5 x 4 / 6 x 2, 6 x 3, 6 x 4)

12.

| | | | |
|---|---|---|---|
| $\frac{90}{225}$ | $\frac{18}{45}$ | $\frac{6}{15}$ | $\frac{2}{5}$ |

(÷ 5, ÷ 3, ÷ 3 / ÷ 5, ÷ 3, ÷ 3)

NAME

SPM5/U13/263

## Finding the Missing Term

Find the missing term.

1. $\frac{2}{3} = \frac{6}{9}$ (2×3, 3×3)
2. $\frac{9}{12} = \frac{3}{4}$ (9÷3, 12÷3)
3. $\frac{12}{27} = \frac{4}{9}$
4. $\frac{1}{4} = \frac{4}{16}$
5. $\frac{2}{5} = \frac{10}{25}$
6. $\frac{1}{2} = \frac{6}{12}$
7. $\frac{3}{4} = \frac{12}{16}$
8. $\frac{30}{35} = \frac{6}{7}$
9. $\frac{36}{48} = \frac{3}{4}$
10. $\frac{1}{3} = \frac{3}{9}$
11. $\frac{12}{18} = \frac{2}{3}$
12. $\frac{9}{72} = \frac{1}{8}$
13. $\frac{12}{28} = \frac{3}{7}$
14. $\frac{3}{8} = \frac{12}{32}$
15. $\frac{5}{6} = \frac{20}{24}$
16. $\frac{7}{14} = \frac{1}{2}$
17. $\frac{1}{5}$ | $\frac{2}{10}$ | $\frac{3}{15}$ | $\frac{4}{20}$ | $\frac{5}{25}$
18. $\frac{25}{30}$ | $\frac{20}{24}$ | $\frac{15}{18}$ | $\frac{10}{12}$ | $\frac{5}{6}$

SPM5/U13/264

## Checking for Equivalent Fractions

Find the cross products.
Are the fractions equivalent?

1. $\frac{2}{7}, \frac{4}{14}$ yes — 7×4=28, 2×14=28
2. $\frac{3}{5}, \frac{6}{8}$ no — 5×6 30, 3×8 24
3. $\frac{3}{8}, \frac{3}{9}$ no — 24, 27
4. $\frac{18}{24}, \frac{6}{8}$ yes — 144, 144
5. $\frac{2}{5}, \frac{6}{15}$ yes — 30, 30
6. $\frac{3}{5}, \frac{8}{15}$ no — 40, 45
7. $\frac{7}{10}, \frac{14}{20}$ yes — 140, 140
8. $\frac{24}{28}, \frac{6}{7}$ yes — 168, 168
9. $\frac{8}{10}, \frac{7}{9}$ no — 70, 72
10. $\frac{10}{12}, \frac{50}{60}$ yes — 600, 600
11. $\frac{7}{8}, \frac{5}{6}$ no — 40, 42
12. $\frac{3}{4}, \frac{9}{16}$ no — 36, 48
13. $\frac{16}{30}, \frac{8}{15}$ yes — 240, 240
14. $\frac{15}{36}, \frac{25}{60}$ yes — 900, 900
15. $\frac{16}{30}, \frac{3}{5}$ no — 90, 80
16. $\frac{7}{30}, \frac{14}{60}$ yes — 420, 420
17. $\frac{4}{5}, \frac{5}{6}$ no — 25, 24
18. $\frac{8}{14}, \frac{12}{21}$ yes — 168, 168
19. $\frac{6}{9}, \frac{4}{6}$ yes — 36, 36
20. $\frac{9}{15}, \frac{8}{10}$ no — 120, 90

NAME

SPM5/U13/265

## Finding the Missing Term Using Cross Products

Use cross products to find the missing term.

| | | | |
|---|---|---|---|
| 1. $\frac{2}{3} = \frac{60}{90}$<br>$3 \times ? = 2 \times 90$<br>$3 \times ? = 180$<br>$3 \times 60 = 180$ | 2. $\frac{3}{4} = \frac{6}{8}$<br>$3 \times ? = 4 \times 6$<br>$3 \times ? = 24$<br>$3 \times 8 = 24$ | 3. $\frac{4}{9} = \frac{8}{18}$<br>$9 \times 8 = 72$ | 4. $\frac{8}{32} = \frac{5}{20}$<br>$32 \times 5 = 160$ |

5. $\frac{3}{10} = \frac{6}{20}$ $3 \times 20 = 60$

6. $\frac{3}{5} = \frac{9}{15}$ $9 \times 5 = 45$

7. $\frac{24}{28} = \frac{6}{7}$ $24 \times 7 = 168$

8. $\frac{1}{4} = \frac{9}{36}$ $36 \times 1 = 36$

9. $\frac{15}{36} = \frac{5}{12}$ $36 \times 5 = 180$

10. $\frac{21}{30} = \frac{7}{10}$ $30 \times 7 = 210$

11. $\frac{14}{36} = \frac{7}{18}$ $14 \times 18 = 252$

12. $\frac{2}{9} = \frac{8}{36}$ $2 \times 36 = 72$

13. $\frac{21}{35} = \frac{3}{5}$ $21 \times 5 = 105$

14. $\frac{16}{20} = \frac{4}{5}$ $16 \times 5 = 80$

15. $\frac{15}{27} = \frac{10}{18}$ $27 \times 10 = 270$

16. $\frac{12}{21} = \frac{16}{28}$ $16 \times 21 = 336$

SPM5/U13/266-267

## Comparing Fractions

Use $>$, $<$, or $=$ to make true statements.

| | | | |
|---|---|---|---|
| 1. $\frac{5}{6} > \frac{3}{6}$<br>common denominators; 5 is greater than 3 | 2. $\frac{2}{3} > \frac{3}{5}$<br>$\frac{10}{15}$ $\frac{9}{15}$ | 3. $\frac{1}{7} < \frac{2}{5}$<br>$\frac{5}{35}$ $\frac{14}{35}$ | 4. $\frac{2}{7} < \frac{1}{3}$<br>$\frac{6}{21}$ $\frac{7}{21}$ |

5. $\frac{2}{5} > \frac{1}{10}$

6. $\frac{2}{9} < \frac{2}{3}$

7. $\frac{3}{8} > \frac{1}{4}$

8. $\frac{4}{5} < \frac{5}{6}$

9. $\frac{3}{7} > \frac{1}{4}$

10. $\frac{3}{11} < \frac{2}{7}$

11. $\frac{7}{8} > \frac{5}{7}$

12. $\frac{3}{4} < \frac{7}{9}$

13. $\frac{2}{3} > \frac{5}{8}$

14. $\frac{3}{7} = \frac{9}{21}$

15. $\frac{3}{5} < \frac{3}{4}$

16. $\frac{3}{8} < \frac{2}{5}$

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## Practice

Complete each sentence with a fraction.

1. In the word Montreal, $\frac{3}{8}$ of the letters are vowels.
2. In the word Vancouver, $\frac{5}{9}$ of the letters are consonants.
3. The fraction $\frac{5}{9}$ has denominator 9 and numerator 5.
4. If is $\frac{1}{4}$, draw a shape to show 1. Shapes will vary.

Write two equivalent fractions for each picture.

5. $\frac{10}{15}, \frac{2}{3}$
6. $\frac{12}{16}, \frac{3}{4}$
7. $\frac{10}{20}, \frac{1}{2}$

Multiply or divide to find equivalent fractions.

8. $\frac{3}{5} = \frac{6}{10} = \frac{9}{15} = \frac{12}{20} = \frac{15}{25}$ (×2, ×3, ×4, ×5; ×2, ×3, ×4, ×5)
9. $\frac{27}{45} = \frac{9}{15} = \frac{3}{5}$ (÷3, ÷3; ÷3, ÷3)
10. $\frac{2}{7} = \frac{4}{14} = \frac{6}{21} = \frac{8}{28} = \frac{10}{35}$ (×2, ×3, ×4, ×5; ×2, ×3, ×4, ×5)
11. $\frac{36}{96} = \frac{18}{48} = \frac{6}{16} = \frac{3}{8}$ (÷2, ÷3, ÷2; ÷2, ÷3, ÷2)

Find the missing term.

12. $\frac{14}{28} = \frac{1}{2}$
13. $\frac{4}{5} = \frac{32}{40}$
14. $\frac{20}{24} = \frac{5}{6}$
15. $\frac{25}{35} = \frac{5}{7}$

Find the cross products.
Are the fractions equivalent?

16. $\frac{3}{7}, \frac{18}{24}$ 126, 72 no
17. $\frac{4}{5}, \frac{16}{24}$ 80, 96 no
18. $\frac{4}{6}, \frac{20}{30}$ 120, 120 yes
19. $\frac{10}{15}, \frac{18}{40}$ 270, 400 no
20. $\frac{24}{32}, \frac{27}{36}$ 864, 864 yes

Use cross products to find the missing term.

21. $\frac{9}{27} = \frac{1}{3}$
22. $\frac{10}{18} = \frac{15}{27}$
23. $\frac{21}{49} = \frac{27}{63}$
24. $\frac{9}{12} = \frac{27}{36}$

Show equivalent fractions with like denominators.
Then use $<$, $>$, or $=$ to make true statements.

25. $\frac{2}{3} < \frac{7}{9}$
26. $\frac{9}{12} = \frac{3}{4}$
27. $\frac{7}{12} < \frac{3}{4}$
28. $\frac{1}{3} > \frac{2}{7}$
29. $\frac{6}{7} > \frac{7}{9}$
30. $\frac{2}{7} < \frac{5}{12}$
31. $\frac{4}{7} < \frac{3}{5}$
32. $\frac{2}{9} > \frac{1}{6}$

NAME

SPM5/U13/268-269

## Changing to Improper Fractions

Change to improper fractions.

| | | | | |
|---|---|---|---|---|
| 1. $2\frac{2}{7}$ $\frac{16}{7}$ $\frac{2\times7+2}{7}=\frac{16}{7}$ | 2. $5\frac{3}{5}$ $\frac{28}{5}$ $\frac{5\times5+3}{5}$ | 3. $1\frac{1}{7}$ $\frac{8}{7}$ | 4. $2\frac{1}{4}$ $\frac{9}{4}$ | 5. $7\frac{5}{8}$ $\frac{61}{8}$ |

6. $4\frac{3}{8}$ $\frac{35}{8}$ 7. $2\frac{2}{3}$ $\frac{8}{3}$ 8. $4\frac{5}{8}$ $\frac{37}{8}$ 9. $6\frac{1}{5}$ $\frac{31}{5}$ 10. $8\frac{2}{9}$ $\frac{74}{9}$

11. $2\frac{2}{7}$ $\frac{16}{7}$ 12. $4\frac{2}{9}$ $\frac{38}{9}$ 13. $1\frac{1}{3}$ $\frac{4}{3}$ 14. $3\frac{1}{9}$ $\frac{28}{9}$ 15. $10\frac{2}{5}$ $\frac{52}{5}$

Complete.

16. $3 = \frac{6}{2} = \frac{9}{3} = \frac{12}{4} = \frac{15}{5}$

17. $6 = \frac{12}{2} = \frac{18}{3} = \frac{24}{4} = \frac{30}{5}$

18. $4 = \frac{8}{2} = \frac{12}{3} = \frac{16}{4} = \frac{20}{5}$

19. $5 = \frac{10}{2} = \frac{15}{3} = \frac{20}{4} = \frac{25}{5}$

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## Changing Improper Fractions

Replace each improper fraction by a number in mixed form, or by a whole number.

| | | | | |
|---|---|---|---|---|
| 1. $\frac{7}{3}$ $2\frac{1}{3}$ $3\overline{)7}$ R1, $\frac{6}{1}$ | 2. $\frac{9}{2}$ $4\frac{1}{2}$ $2\overline{)9}$ R1, $\frac{8}{1}$ | 3. $\frac{50}{7}$ $7\frac{1}{7}$ | 4. $\frac{37}{4}$ $9\frac{1}{4}$ | 5. $\frac{35}{7}$ 5 |

6. $\frac{11}{4}$ $2\frac{3}{4}$ 7. $\frac{9}{5}$ $1\frac{4}{5}$ 8. $\frac{27}{4}$ $6\frac{3}{4}$ 9. $\frac{15}{5}$ 3 10. $\frac{67}{8}$ $8\frac{3}{8}$

11. $\frac{22}{3}$ $7\frac{1}{3}$ 12. $\frac{42}{7}$ 6 13. $\frac{11}{3}$ $3\frac{2}{3}$ 14. $\frac{21}{4}$ $5\frac{1}{4}$ 15. $\frac{17}{3}$ $5\frac{2}{3}$

16. $\frac{36}{9}$ 4 17. $\frac{29}{5}$ $5\frac{4}{5}$ 18. $\frac{17}{10}$ $1\frac{7}{10}$ 19. $\frac{42}{6}$ 7 20. $\frac{50}{12}$ $4\frac{2}{12}$ (or $4\frac{1}{6}$)

21. $\frac{20}{2}$ 10 22. $\frac{38}{8}$ $4\frac{6}{8}$ (or $4\frac{3}{4}$) 23. $\frac{53}{6}$ $8\frac{5}{6}$ 24. $\frac{110}{10}$ 11 25. $\frac{100}{12}$ $8\frac{4}{12}$ (or $8\frac{1}{3}$)

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## Adding Fractions

Add. Regroup the sum when it shows an improper fraction.

1. $7\frac{2}{9} + 1\frac{8}{9} = 8\frac{10}{9}$ or $9\frac{1}{9}$

2. $11\frac{6}{7} + 2\frac{5}{7} = 13\frac{11}{7}$ or $14\frac{4}{7}$

3. $2\frac{1}{3} + 9\frac{1}{3} = 11\frac{2}{3}$

4. $2\frac{5}{9} + 4\frac{8}{9} = 7\frac{4}{9}$

5. $\frac{8}{10} + \frac{3}{10} = 1\frac{1}{10}$

6. $3\frac{2}{9} + 4\frac{5}{9} = 7\frac{7}{9}$

7. $4\frac{2}{3} + 6\frac{1}{3} = 11$

8. $\frac{9}{10} + \frac{7}{10} = 1\frac{6}{10}$ or $1\frac{3}{5}$

9. $4\frac{2}{5} + 4 = 8\frac{2}{5}$

10. $2\frac{7}{8} + 4\frac{3}{8} = 7\frac{2}{8}$ or $7\frac{1}{4}$

11. $2\frac{5}{12} + 4\frac{7}{12}$ 7

12. $2\frac{5}{6} + 5\frac{5}{6} = 8\frac{4}{6}$ or $8\frac{2}{3}$

13. $3\frac{3}{4} + 4\frac{3}{4} = 8\frac{2}{4}$ or $8\frac{1}{2}$

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## Subtracting Fractions

Subtract.

1. $7\frac{3}{5} \rightarrow 6\frac{8}{5}$
   $2\frac{4}{5} \rightarrow 2\frac{4}{5}$
   $4\frac{4}{5}$

2. $6\frac{1}{3} \rightarrow 5\frac{4}{3}$
   $4\frac{2}{3} \rightarrow 4\frac{2}{3}$
   $1\frac{2}{3}$

3. $6 - 2\frac{1}{2} = 3\frac{1}{2}$

4. $1\frac{2}{7} - \frac{3}{7} = \frac{6}{7}$

5. $2\frac{1}{4} - \frac{3}{4} = 1\frac{2}{4}$ or $1\frac{1}{2}$

6. $5\frac{2}{9} - 1\frac{4}{9} = 3\frac{7}{9}$

7. $7\frac{1}{10} - 3\frac{3}{10} = 3\frac{8}{10}$ or $3\frac{4}{5}$

8. $9\frac{3}{4} - 1\frac{1}{4} = 8\frac{2}{4}$ or $8\frac{1}{2}$

9. $6 - 3\frac{1}{5}$ $2\frac{4}{5}$

10. $9\frac{1}{9} - 2\frac{8}{9}$ $6\frac{2}{9}$

11. $8\frac{3}{8} - 2\frac{7}{8}$ $5\frac{4}{8}$ or $5\frac{1}{2}$

12. $3\frac{1}{3} - 1\frac{2}{3}$ $1\frac{2}{3}$

13. $7\frac{1}{10} - 4\frac{7}{10}$ $2\frac{4}{10}$ or $2\frac{2}{5}$

14. $6\frac{5}{6} - 4$ $2\frac{5}{6}$

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## Another Look at Finding the Missing Term

Find each of these. Use other paper if needed.

| | | | |
|---|---|---|---|
| 1. $\frac{2}{5}$ of 15 6<br>$5\overline{)15}$ $\frac{1}{5}$ of 15 = 3<br>$\frac{2}{5}$ of 15 = 6 | 2. $\frac{3}{4}$ of 12 9<br>$4\overline{)12}$ $\frac{1}{4}$ of 12 = 3<br>$\frac{3}{4}$ of 12 = 9 | 3. $\frac{1}{3}$ of 24 8 | 4. $\frac{5}{6}$ of 18 15 |

| | | | |
|---|---|---|---|
| 5. $\frac{2}{3}$ of 24 16 | 6. $\frac{3}{10}$ of 40 12 | 7. $\frac{3}{5}$ of 60 36 | 8. $\frac{2}{9}$ of 27 6 |
| 9. $\frac{4}{5}$ of 35 28 | 10. $\frac{3}{8}$ of 48 18 | 11. $\frac{5}{9}$ of 72 40 | 12. $\frac{6}{7}$ of 42 36 |
| 13. $\frac{7}{10}$ of 100 70 | 14. $\frac{5}{12}$ of 144 60 | 15. $\frac{2}{7}$ of 56 16 | 16. $\frac{5}{6}$ of 90 75 |
| 17. $\frac{4}{7}$ of 84 48 | 18. $\frac{9}{10}$ of 90 81 | 19. $\frac{5}{8}$ of 32 20 | 20. $\frac{11}{12}$ of 96 88 |

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## Equivalent Fractions and Decimals

Write a decimal that is equivalent to each of these.

| | | | |
|---|---|---|---|
| 1. $\frac{3}{5}$ 0.6<br>$\frac{3}{5} = \frac{6}{10}$ (3 x 2, 5 x 2) | 2. $\frac{3}{4}$ 0.75<br>$\frac{3}{4} = \frac{75}{100}$ (3 x 25, 4 x 25) | 3. $\frac{2}{4}$<br>0.50 or 0.5 | 4. $\frac{9}{10}$<br>0.9 |

| | | | |
|---|---|---|---|
| 5. $\frac{2}{5}$ 0.4 | 6. $\frac{7}{10}$ 0.7 | 7. $4\frac{1}{2}$ 4.5 | 8. $6\frac{1}{4}$ 6.25 |
| 9. $8\frac{3}{4}$ 8.75 | 10. $10\frac{3}{10}$ 10.3 | 11. $9\frac{4}{5}$ 9.8 | 12. $2\frac{7}{10}$ 2.7 |
| 13. $1\frac{3}{5}$ 1.6 | 14. $\frac{1}{10}$ 0.1 | 15. $\frac{1}{4}$ 0.25 | 16. $5\frac{1}{5}$ 5.2 |
| 17. $\frac{2}{8}$ 0.250 or 0.25 | 18. $2\frac{6}{8}$ 2.750 or 2.75 | 19. $4\frac{3}{4}$ 4.75 | 20. $2\frac{2}{5}$ 2.2 or 2.20 |

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## Changing Fractions to Decimals by Dividing

Divide the numerator by the denominator to change each fraction to a decimal. Use as many zeros in the dividend as you need.

1. $\frac{9}{4}$ 2.25

$$4\overline{)9.00}\quad 2.25$$
$$8$$
$$10$$
$$8$$
$$20$$
$$20$$
$$0$$

2. $\frac{5}{8}$ 0.625

$$8\overline{)5.000}\quad 0.625$$
$$48$$
$$20$$
$$16$$
$$40$$
$$40$$
$$0$$

3. $\frac{38}{5}$ 7.6

4. $\frac{1}{4}$ 0.25

5. $\frac{4}{5}$ 0.8

6. $\frac{7}{8}$ 0.875

7. $\frac{17}{8}$ 2.125

8. $\frac{3}{4}$ 0.75

9. $\frac{25}{10}$ 2.5

10. $\frac{27}{8}$ 3.375

11. $\frac{125}{4}$ 31.25

12. $\frac{22}{5}$ 4.4

13. $\frac{9}{2}$ 4.5

14. $\frac{78}{8}$ 9.75

15. $\frac{63}{10}$ 6.3

16. $\frac{6}{5}$ 1.2

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## Using Decimals to Work with Fractions

Add the fractions. Then add the equivalent decimals. Compare the sums.

1. $2\frac{2}{5}$ 2.4
$4\frac{1}{5}$ 4.2
$6\frac{3}{5}$ 6.6

2. $7\frac{3}{8}$ 7.375
$2\frac{1}{8}$ 2.125
$9\frac{4}{8}$ or $9\frac{1}{2}$ 9.500

3. $5\frac{1}{4}$ 5.25
$3\frac{3}{4}$ 3.75
9 9.00

4. $6\frac{3}{10}$ 6.3
$3\frac{9}{10}$ 3.9
$10\frac{2}{10}$ or $10\frac{1}{5}$ 10.2

5. $10\frac{5}{8}$ 10.625
$2\frac{5}{8}$ 2.625
$13\frac{2}{8}$ or $13\frac{1}{4}$ 13.250

6. $3\frac{1}{2}$ 3.5
$6\frac{1}{2}$ 6.5
10 10.0

7. $5\frac{7}{8}$ 5.875
$1\frac{5}{8}$ 1.625
$7\frac{4}{8}$ or $7\frac{1}{2}$ 7.500

8. $6\frac{3}{4}$ 6.75
$2\frac{3}{4}$ 2.75
$9\frac{2}{4}$ or $9\frac{1}{2}$ 9.50

9. $12\frac{2}{5}$ 12.4
$4\frac{3}{5}$ 4.6
17 17.0

10. $8\frac{7}{10}$ 8.7
$1\frac{5}{10}$ 1.5
$10\frac{2}{10}$ or $10\frac{1}{5}$ 10.2

Subtract the fractions. Then subtract the equivalent decimals. Compare the differences.

11. $6\frac{2}{5}$ 6.4
$4\frac{4}{5}$ 4.8
$1\frac{3}{5}$ 1.6

12. $4\frac{1}{4}$ 4.25
$2\frac{3}{4}$ 2.75
$1\frac{2}{4}$ or $1\frac{1}{2}$ 1.50

13. 7 7.0
$4\frac{3}{5}$ 4.6
$2\frac{2}{5}$ 2.4

14. $9\frac{3}{8}$ 9.375
$6\frac{5}{8}$ 6.625
$2\frac{6}{8}$ or $2\frac{3}{4}$ 2.750

15. 5 5.0
$3\frac{1}{2}$ 3.5
$1\frac{1}{2}$ 1.5

NAME _____

## Practice

Perform the indicated operation.

1. $\begin{array}{r} 27.76 \\ 9.07 \\ +\ 5.34 \\ \hline 42.17 \end{array}$

2. $\begin{array}{r} 5.83 \\ \times\ 100 \\ \hline 583.00 \end{array}$

3. $6\overline{)16.5}$ → 2.75

4. $5\frac{3}{8} - 1\frac{5}{8} = 3\frac{6}{8}$

5. $21\overline{)98.28}$ → 4.68

6. $\begin{array}{r} \$24.19 \\ -\ 6.83 \\ \hline \$17.36 \end{array}$

7. $3\frac{1}{7} + 5\frac{3}{7} = 8\frac{4}{7}$

8. $\begin{array}{r} 6.8 \\ \times\ 7.3 \\ \hline 49.64 \end{array}$

9. $7\overline{)1505}$ → 215

10. $\begin{array}{r} 9.031 \\ -8.218 \\ \hline 0.813 \end{array}$

11. $17 \times 38 \times 46 = 29\,716$

12. $1000 \times 5.147 = 5147$

13. $\$86.42 - \$17.87 = \$68.55$

14. $6\frac{1}{5} + 3\frac{3}{5} = 9\frac{4}{5}$

15. $38 + 441 + 1906 = 2385$

16. $77.4 \div 18 = 4.3$

Solve. Show your work.

17. The practice rink is about 26 m by 61 m. How many square metres of ice is this? 1586 $m^2$

18. Jud paid \$40.50 for 6 poles to support a fence. What did each one cost? \$6.75

19. Trish had $2\frac{1}{4}$ cans of paint. She used $\frac{3}{4}$ of a can when she painted the wagon. How much paint did she have left? $1\frac{2}{4}$, or $1\frac{1}{2}$ cans

20. Canada's greatest distance east-to-west is 5189 km. The greatest distance north-to-south is 4629 km. How much less is this? 560 km

21. Canada has 23 810 km of coast on the Atlantic Ocean, 52 410 km on the Arctic Ocean, 10 890 km on James and Hudson Bays, and 8952 km on the Pacific Ocean. Altogether, how many kilometres of coastline does this make? 96 062 km

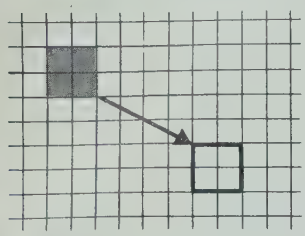
22. Mrs. Hope's garden is 7 m by 13 m in a rectangular shape. She is going to fence it in with fence that costs \$3.25/m. How much will this cost? \$136.50

NAME

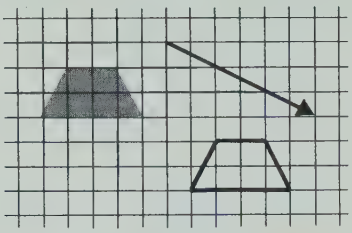
SPM5/U14/288-289

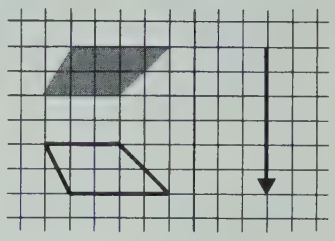
## Slides

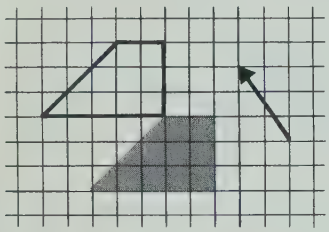
Use tracing paper to test whether the white shape is the slide image of the gray shape for the slide arrow shown.

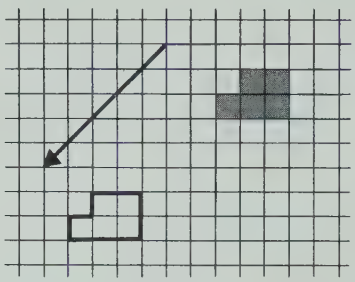
1. 

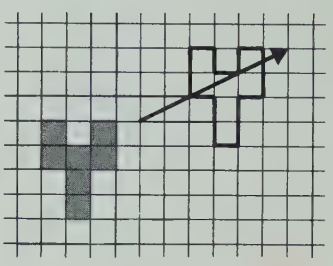
no

2. 
yes

3. 
no

4. 
yes

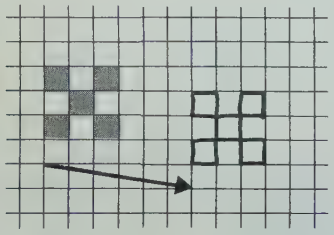
5. 
no

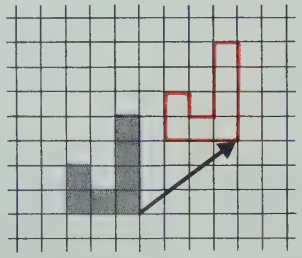
6. 
yes

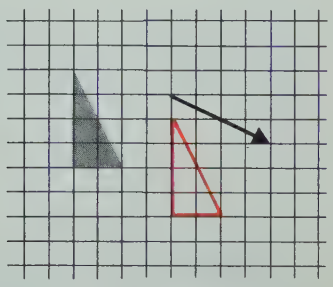
SPM5/U14/290-291

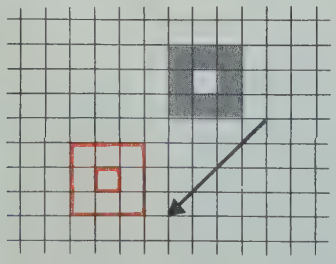
## Drawing Slide Images

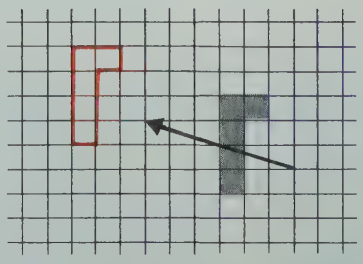
Use tracing paper to help you draw the slide image of the given shape for the slide arrow shown.

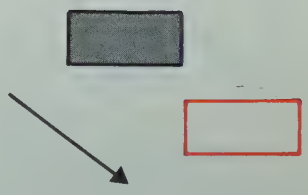
1. 

2. 

3. 

4. 

5. 

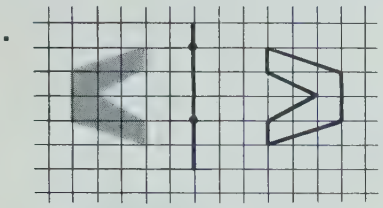
6. 

NAME

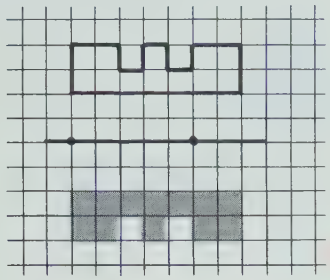
SPM5/U14/292-293

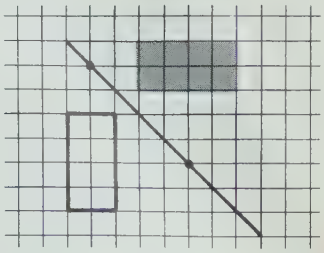
## Flips

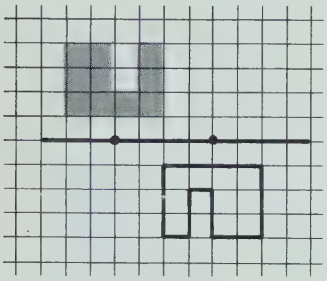
Use tracing paper to test whether the white shape is the flip image of the gray shape for the flip line shown.

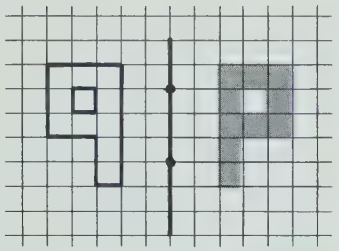
1. 

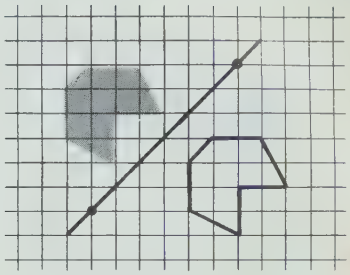
no

2. 
yes

3. 
yes

4. 
no

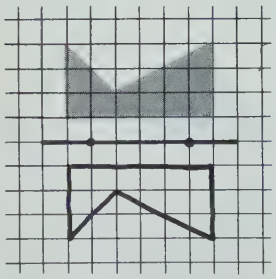
5. 
yes

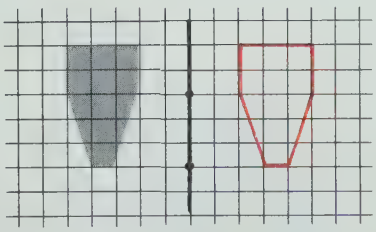
6. 
no

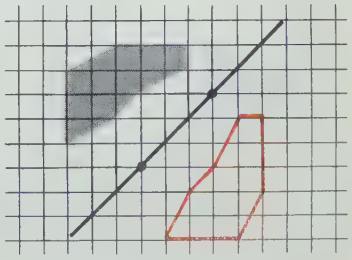
SPM5/U14/294-295

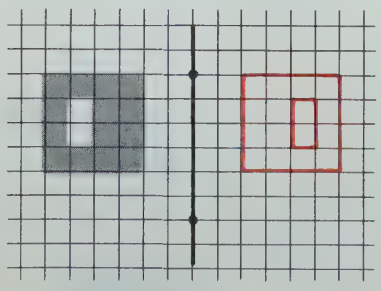
## Drawing Flip Images

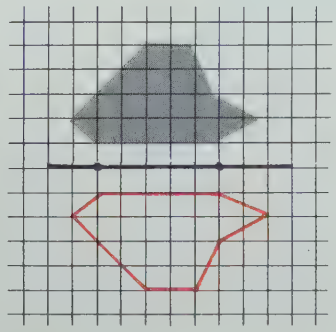
Use tracing paper to help you draw the flip image of the given shape for the flip line shown.

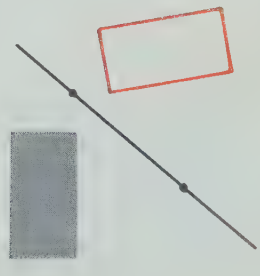
1. 

2. 

3. 

4. 

5. 

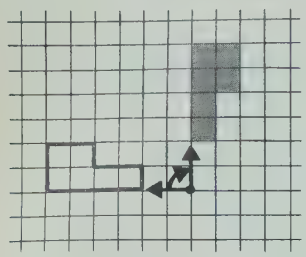
6. 

NAME

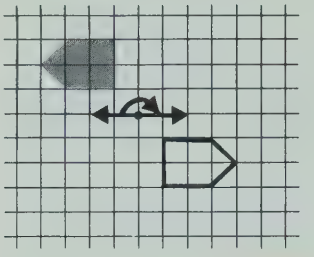
SPM5/U14/296-297

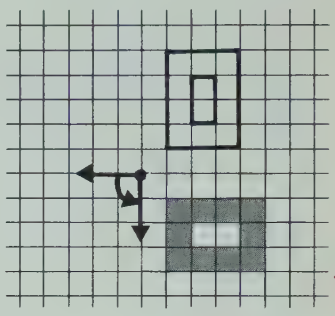
## Turns

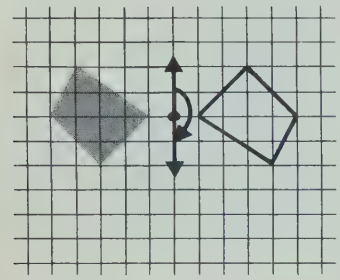
Use tracing paper to test whether the white shape
is the turn image of the gray shape for the turn angle shown.

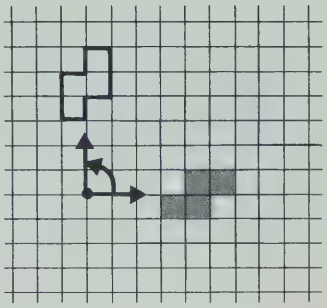
1. 

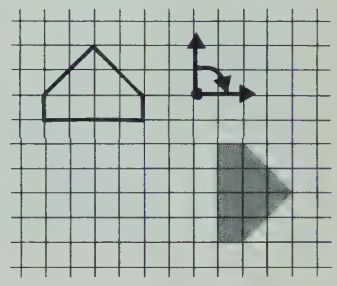
no

2. 
yes

3. 
yes

4. 
yes

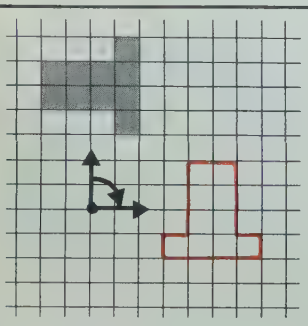
5. 
no

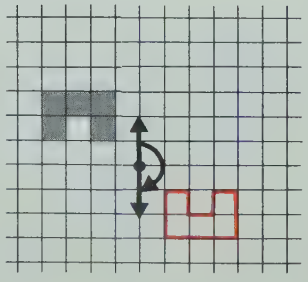
6. 
no

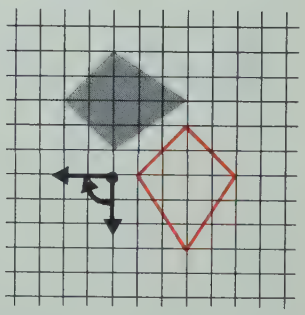
SPM5/U14/298-299

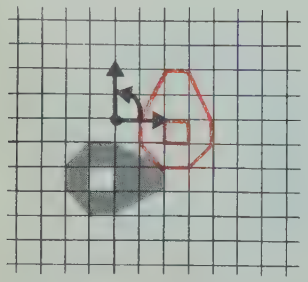
## Drawing Turn Images

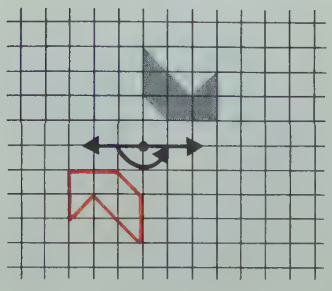
Use tracing paper to help you draw the turn image
of the given shape for the turn angle shown.

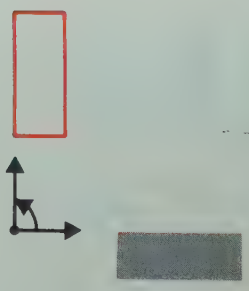
1. 

2. 

3. 

4. 

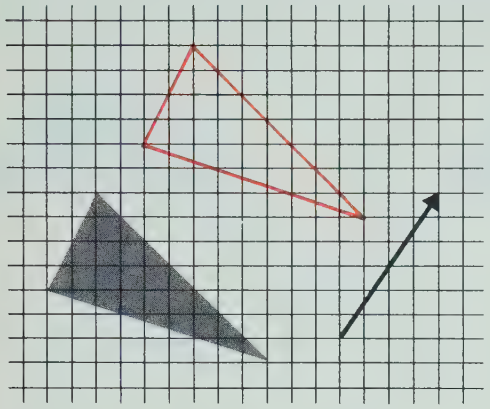
5. 

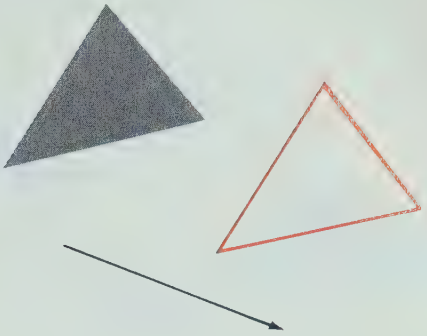
6. 

NAME

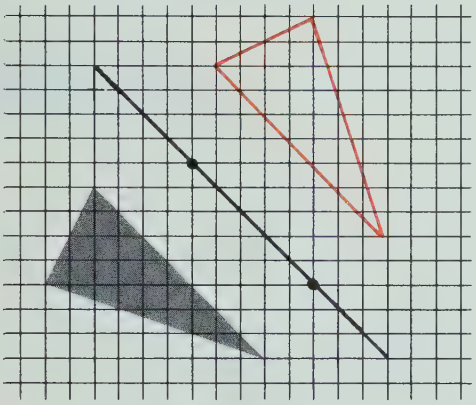
## Practice

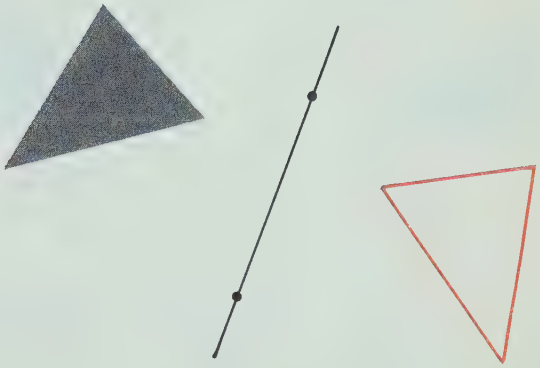
Use tracing paper to help you draw the slide image.

1. 

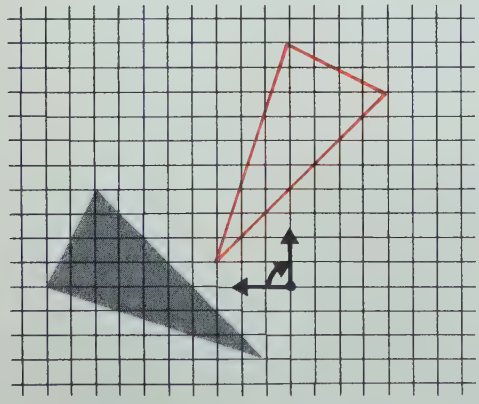
2. 

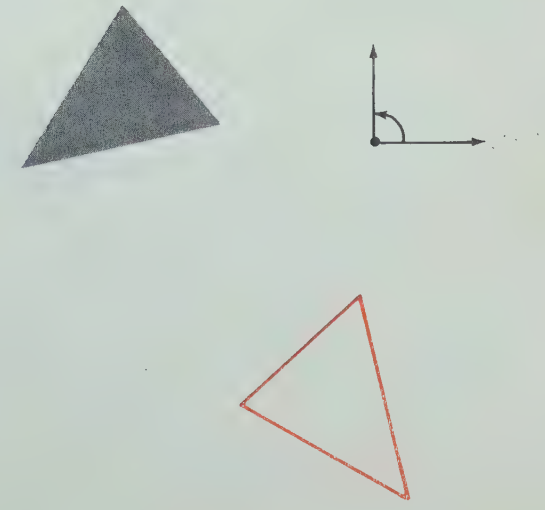
Use tracing paper to help you draw the flip image.

3. 

4. 

Use tracing paper to help you draw the turn image.

5. 

6. 

NAME

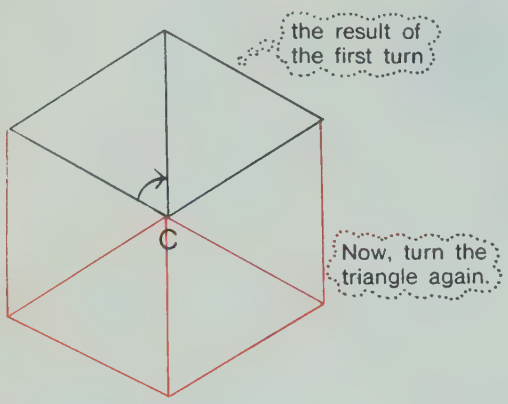


## Building Polygons from Triangles

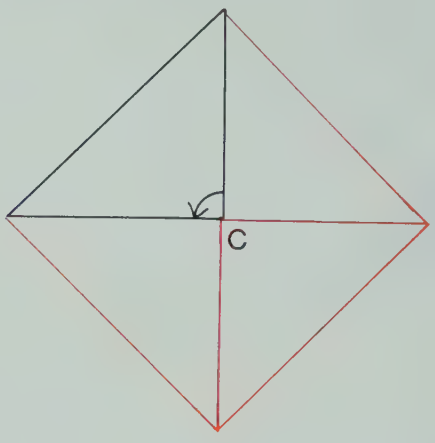
Use as many turns as needed to build a polygon.
Use C as the turn centre for the turn angle.

You may wish to use cutouts or tracing paper.

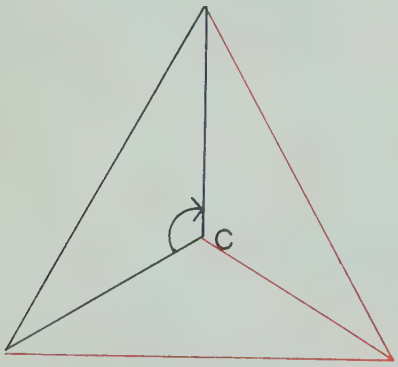
1.



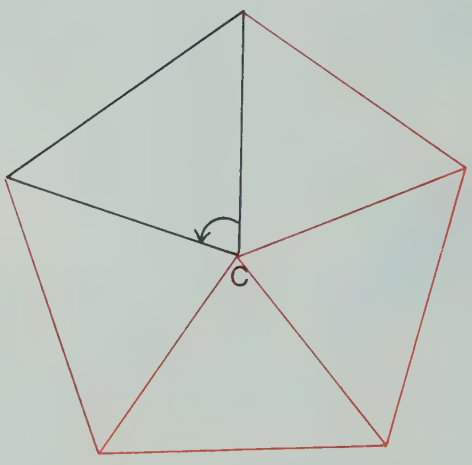

2.




3.



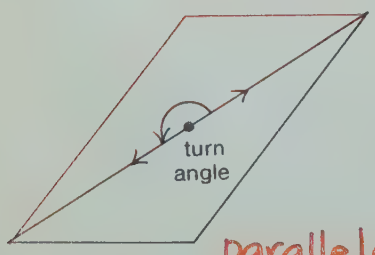

4.




5. Name each polygon you drew for Exercises 1-4. 1. hexagon 2. square 3. triangle 4. pentagon

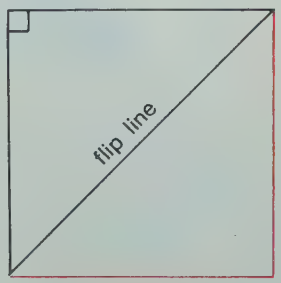
Draw the suggested flip or turn image. Name the polygon that results.

6.




parallelogram

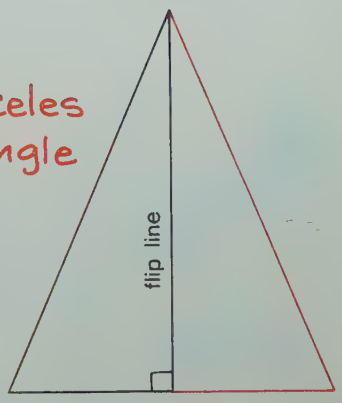
7.




square

8.

isosceles triangle

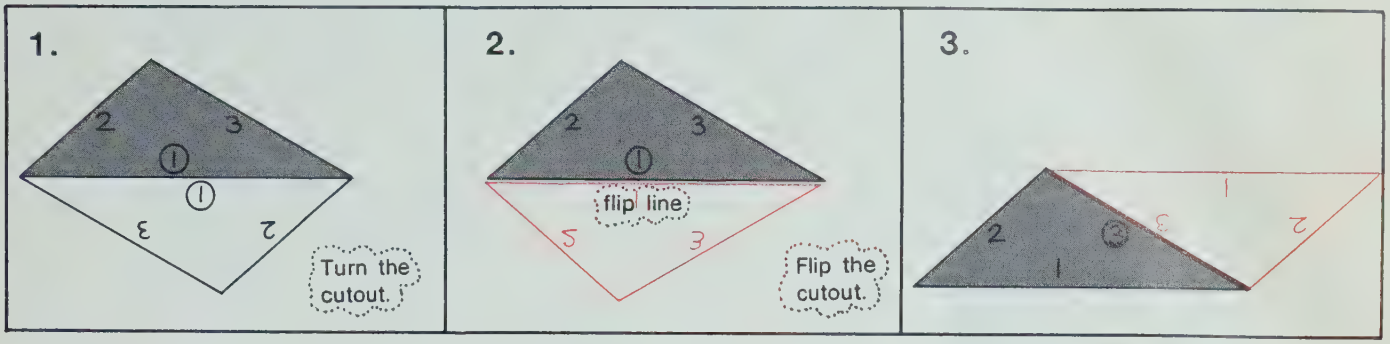


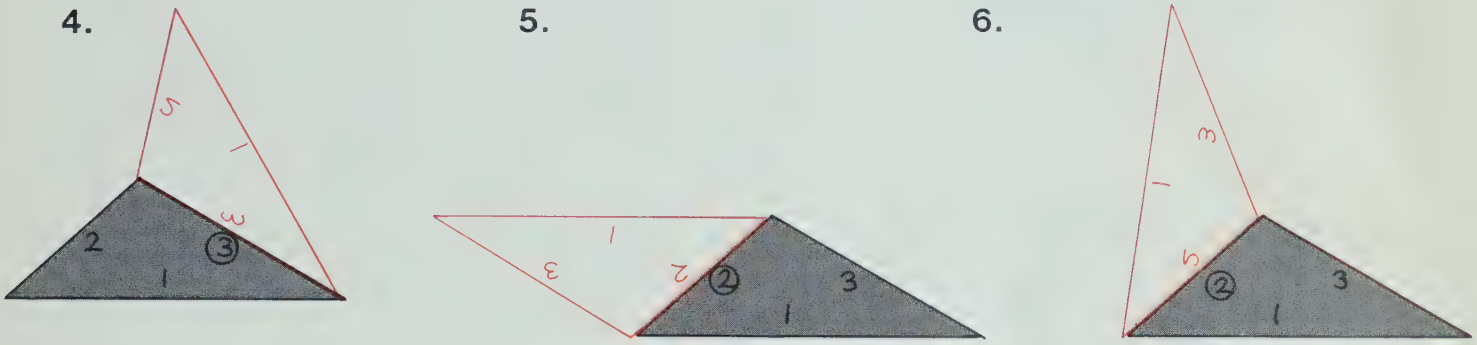
NAME

SPM5/U14/304-305

## Sharing Congruent Sides

Make a cardboard cutout of the shape.
Draw six different shapes by placing congruent sides together.



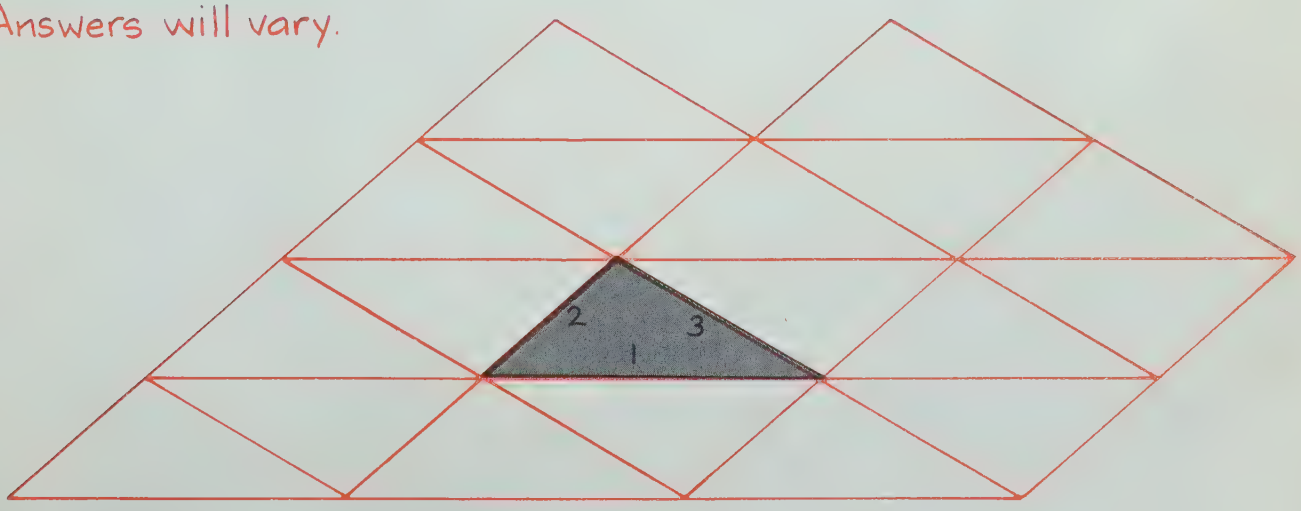




SPM5/U14/306-307

## Tiling with Congruent Shapes

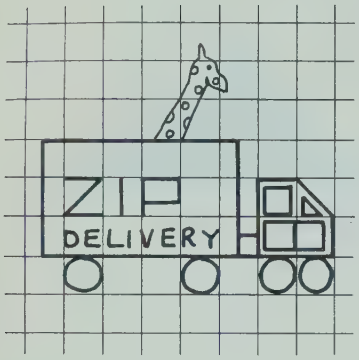
Use the cutout of the shape above to make a pattern
by placing congruent sides together. Show a pattern without spaces.

Answers will vary.

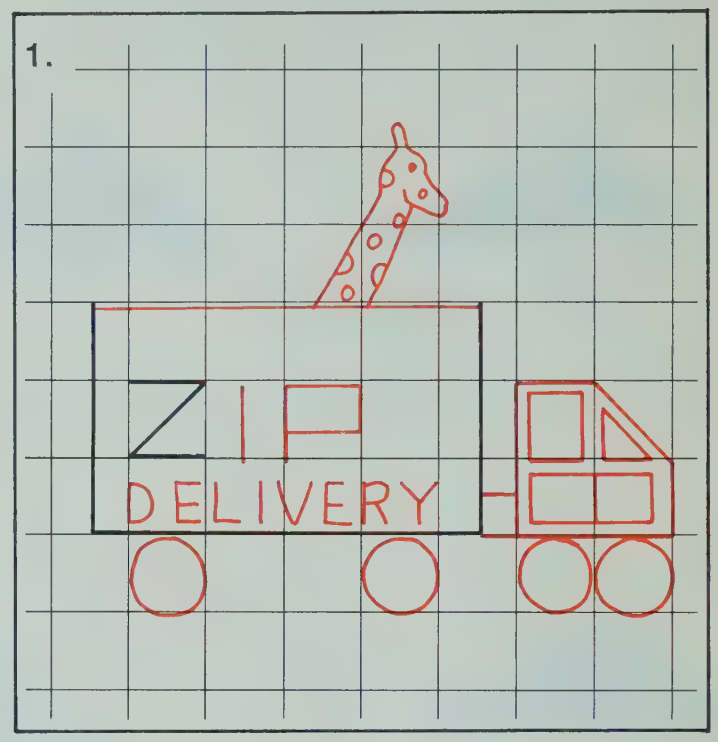


# Copying Pictures Using Grids

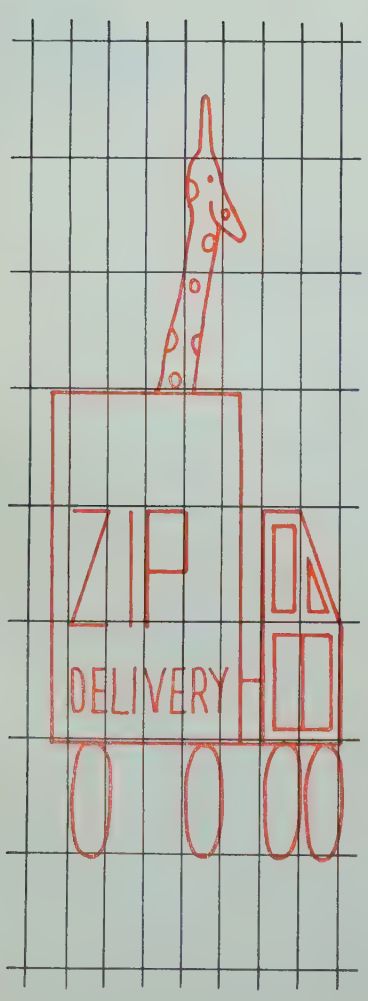
Copy the picture on each grid.



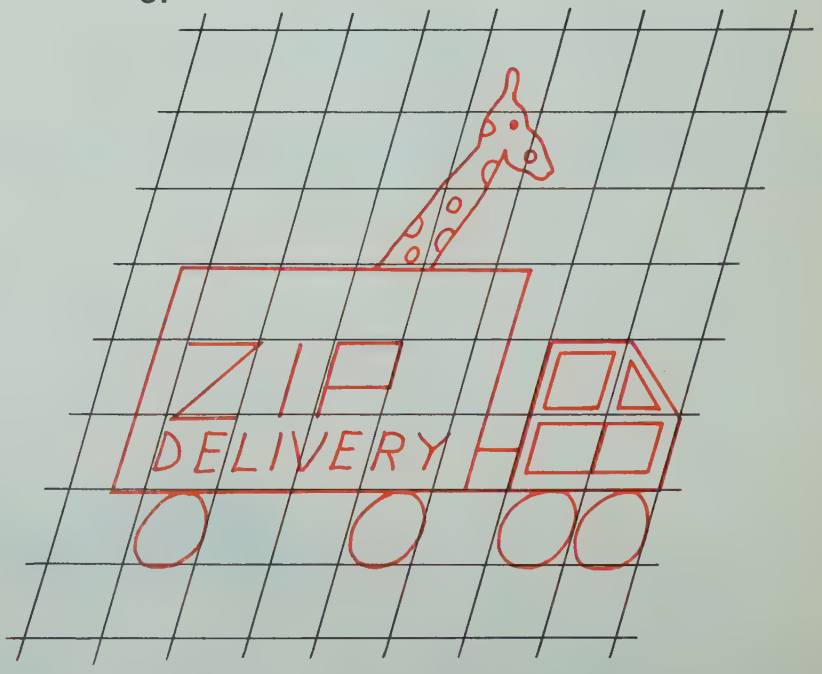

1.




2.




3.



NAME _____

## Practice

Perform the indicated operation.

1. $\$21.75 + 19.46$
   $\$41.21$

2. $7.3 \times 5.9$
   $43.07$

3. $16\overline{)116.8}$
   $7.3$

4. $400 \times 18$
   $7200$

5. $7\frac{1}{8} - 3\frac{3}{8}$
   $3\frac{6}{8}$

6. $17.013 - 8.916$
   $8.097$

7. $531 \times 209$
   $110\,979$

8. $6\overline{)13.5}$
   $2.25$

9. $52\,381 + 107\,486 + 9\,302$
   $169\,169$

10. $5\frac{3}{7} + 2\frac{4}{7}$
    $8$

11. $4281 \div 16$
    $267$ R9 (or $267.5625$)

12. $19 \times 231 \times 7$
    $30\,723$

13. $4.865 + 7.912$
    $12.777$

14. $6\frac{5}{9} - 2\frac{1}{9}$
    $4\frac{4}{9}$

15. $8.914 \times 7$
    $62.398$

16. $42.63 \div 7$
    $6.09$

Solve. Show your work.

17. Kit went deep-sea fishing. He caught three cod. The first had a mass of 2.4 kg, the second 2.9 kg, and the third 3.7 kg. What was the average mass of the cod? 3.0 kg

18. Banff National Park in Alberta contains 6 646 km$^2$. Jasper Park adjoins it and contains 10 877 km$^2$. Together, how many square kilometres do they cover? 17 523

19. Jacques Cartier discovered the Gulf of St. Lawrence in 1534. The St. Lawrence Seaway was completed in 1959. Between the discovery and the Seaway's completion, how many years passed? 425

20. The Welland Ship Canal takes ships between Lake Erie and Lake Ontario. The difference in elevation is about 99.2 m. There are 8 locks. If each lock raised a ship an equal amount, how much would this be? 12.4 m

21. The scholarship-fund drive raised \$5283 this year. Last year it raised only \$4721. How much was the increase this year? \$562

22. Luigi stacked up 36 boards. Each board was 1.91 cm thick. How high was the stack? 68.76 cm

NAME

SPM5/U15/316-317

## Writing Ratios

Write each as a ratio in two other ways.

1. 3 to 5 3:5 $\frac{3}{5}$

2. 6 to 14 6:14 $\frac{6}{14}$

3. 12 to 6 12:6 $\frac{12}{6}$

4. 7 runners out of 30
   7 of 30, 7:30 $\frac{7}{30}$

5. 5 losses in 15 games
   5 of 15, 5:15 $\frac{5}{15}$

6. 16 girls and 19 boys
   16 to 19, 16:19 $\frac{16}{19}$

7. 5 to 9 5:9 $\frac{5}{9}$

8. $\frac{25}{13}$ 25:13 $\frac{25}{13}$

9. $\frac{18}{100}$ 18:100 $\frac{18}{100}$

10. 8 to 12 8:12 $\frac{8}{12}$

11. $\frac{24}{120}$ 24:120 $\frac{24}{120}$

12. 60 to 10 60:10 $\frac{60}{10}$

13. 5 wins in 11 games
    5 of 11, 5:11 $\frac{5}{11}$

14. 5 wins and 6 losses
    5 to 6, 5:6 $\frac{5}{6}$

15. sell 9 of the 24 cars
    9 of 24, 9:24 $\frac{9}{24}$

16. 12 dogs and 9 cats
    12 to 9, 12:9 $\frac{12}{9}$

17. 32 of 50 players
    32 of 50, 32:50 $\frac{32}{50}$

18. 45 students and 3 teachers
    45 to 3, 45:3 $\frac{45}{3}$

SPM5/U15/318-319

## Writing Equivalent Ratios

Complete. Use patterns or multiplication.

1. $\frac{5}{6} = \frac{10}{12}$ (5×2, 6×2) $= \frac{15}{18}$ (5×3, 6×3) $= \frac{20}{24}$ (5×4, 6×4) $= \frac{25}{30}$ (5×5, 6×5)

2. $\frac{7}{8} = \frac{14}{16}$ (7×2, 8×2) $= \frac{21}{24}$ (7×3, 8×3) $= \frac{28}{32}$ (7×4, 8×4) $= \frac{35}{40}$ (7×5, 8×5)

3. $\frac{3}{4} = \frac{6}{8} = \frac{9}{12} = \frac{12}{16} = \frac{15}{20}$

4. $\frac{4}{3} = \frac{8}{6} = \frac{12}{9} = \frac{16}{12} = \frac{20}{15}$

5. $\frac{3}{2} = \frac{6}{4} = \frac{9}{6} = \frac{12}{8} = \frac{15}{10}$

6. $\frac{2}{7} = \frac{4}{14} = \frac{6}{21} = \frac{8}{28} = \frac{10}{35}$

7. $\frac{5}{8} = \frac{10}{16} = \frac{15}{24} = \frac{20}{32} = \frac{25}{40}$

8. $\frac{4}{4} = \frac{8}{8} = \frac{12}{12} = \frac{16}{16} = \frac{20}{20}$

9. $\frac{8}{3} = \frac{16}{6} = \frac{24}{9} = \frac{32}{12} = \frac{40}{15}$

10. $\frac{7}{5} = \frac{14}{10} = \frac{21}{15} = \frac{28}{20} = \frac{35}{25}$

11. $\frac{2}{9} = \frac{4}{18} = \frac{6}{27} = \frac{8}{36} = \frac{10}{45}$

12. $\frac{6}{5} = \frac{12}{10} = \frac{18}{15} = \frac{24}{20} = \frac{30}{25}$

NAME

SPM5/U15/320-321

## Finding the Missing Term in Equivalent Ratios

Complete.

| | | | |
|---|---|---|---|
| 1. $\frac{3}{5} = \frac{6}{10}$ (3 × 2; 5 × 2) | 2. $\frac{21}{24} = \frac{7}{8}$ (21 ÷ 3; 24 ÷ 3) | 3. $\frac{4}{1} = \frac{20}{5}$ | 4. $\frac{10}{25} = \frac{2}{5}$ |
| 5. $\frac{3}{4} = \frac{27}{36}$ | 6. $\frac{4}{3} = \frac{40}{30}$ | 7. $\frac{18}{3} = \frac{6}{1}$ | 8. $\frac{8}{10} = \frac{4}{5}$ |
| 9. $\frac{4}{24} = \frac{1}{6}$ | 10. $\frac{1}{2} = \frac{6}{12}$ | 11. $\frac{15}{12} = \frac{5}{4}$ | 12. $\frac{1}{3} = \frac{9}{27}$ |
| 13. $\frac{3}{8} = \frac{9}{24}$ | 14. $\frac{32}{20} = \frac{8}{5}$ | 15. $\frac{3}{2} = \frac{15}{10}$ | 16. $\frac{15}{18} = \frac{5}{6}$ |

SPM5/U15/322-323

## Finding the Missing Term Using Cross Products

Complete.

| | | | |
|---|---|---|---|
| 1. $\frac{9}{12} = \frac{6}{8}$<br>$12 \times ? = 9 \times 8$<br>$12 \times ? = 72$<br>$12 \times 6 = 72$ | 2. $\frac{8}{12} = \frac{10}{15}$<br>$8 \times ? = 12 \times 10$<br>$8 \times ? = 120$<br>$8 \times 15 = 120$ | 3. $\frac{15}{18} = \frac{10}{12}$ | 4. $\frac{24}{6} = \frac{28}{7}$ |
| 5. $\frac{6}{18} = \frac{4}{12}$ | 6. $\frac{10}{5} = \frac{6}{3}$ | 7. $\frac{12}{21} = \frac{8}{14}$ | 8. $\frac{14}{10} = \frac{49}{35}$ |
| 9. $\frac{15}{10} = \frac{9}{6}$ | 10. $\frac{3}{12} = \frac{5}{20}$ | 11. $\frac{15}{24} = \frac{20}{32}$ | 12. $\frac{21}{27} = \frac{70}{90}$ |
| 13. $\frac{22}{16} = \frac{55}{40}$ | 14. $\frac{12}{20} = \frac{15}{25}$ | 15. $\frac{15}{9} = \frac{25}{15}$ | 16. $\frac{8}{36} = \frac{10}{45}$ |

NAME _____

## Practice

Write each ratio in two other ways.

1. 4 out of 7

   4:7 $\frac{4}{7}$

2. 10 to 3

   10:3 $\frac{10}{3}$

3. 5 to 12

   5:12 $\frac{5}{12}$

4. 13 to 100

   13:100 $\frac{13}{100}$

5. 15:2

   15 to 2 $\frac{15}{2}$

6. 3 out of 13

   3:13 $\frac{3}{13}$

Write as a ratio in three ways.

7. trading 5; keeping 8

   5 to 8 5:8 $\frac{5}{8}$

8. racing 26 horses out of 40 horses

   26 of 40 26:40 $\frac{26}{40}$

9. 13 goals in 15 shots

   13 of 15 13:15 $\frac{13}{15}$

10. swimming 11 laps out of 20

    11 of 20 11:20 $\frac{11}{20}$

11. winning 85 games, losing 40

    85 to 40 85:40 $\frac{85}{40}$

12. reading 10 out of 18 books

    10 of 18 10:18 $\frac{10}{18}$

Complete. Use patterns or multiplication.

13. $\frac{1}{6} = \frac{2}{12} = \frac{3}{18} = \frac{4}{24} = \frac{5}{30}$

14. $\frac{2}{2} = \frac{4}{4} = \frac{6}{6} = \frac{8}{8} = \frac{10}{10}$

15. $\frac{6}{5} = \frac{12}{10} = \frac{18}{15} = \frac{24}{20} = \frac{30}{25}$

16. $\frac{3}{7} = \frac{6}{14} = \frac{9}{21} = \frac{12}{28} = \frac{15}{35}$

17. $\frac{6}{5} = \frac{12}{10} = \frac{18}{15} = \frac{24}{20} = \frac{30}{25}$

18. $\frac{2}{9} = \frac{4}{18} = \frac{6}{27} = \frac{8}{36} = \frac{10}{45}$

Complete.

19. $\frac{10}{3} = \frac{40}{12}$

20. $\frac{25}{40} = \frac{5}{8}$

21. $\frac{7}{42} = \frac{1}{6}$

22. $\frac{8}{5} = \frac{24}{15}$

23. $\frac{26}{42} = \frac{13}{21}$

24. $\frac{75}{21} = \frac{25}{7}$

25. $\frac{26}{39} = \frac{2}{3}$

26. $\frac{5}{9} = \frac{20}{36}$

27. $\frac{8}{10} = \frac{12}{15}$

28. $\frac{21}{18} = \frac{14}{12}$

29. $\frac{6}{8} = \frac{15}{20}$

30. $\frac{4}{14} = \frac{6}{21}$

31. $\frac{18}{12} = \frac{21}{14}$

32. $\frac{60}{12} = \frac{25}{5}$

33. $\frac{100}{150} = \frac{12}{18}$

34. $\frac{10}{8} = \frac{25}{20}$

NAME

SPM5/U15/324-325

## Writing Equivalent Rates

Complete. Use patterns or multiplication.

1. $\frac{30}{1} = \frac{60}{2} = \frac{90}{3} = \frac{120}{4} = \frac{150}{5}$ (30×2, 30×3, 30×4, 30×5; 1×2, 1×3, 1×4, 1×5)

2. $\frac{2}{3} = \frac{4}{6} = \frac{6}{9} = \frac{8}{12} = \frac{10}{15}$ (2×2, 2×3, 2×4, 2×5; 3×2, 3×3, 3×4, 3×5)

3. $\frac{5}{2} = \frac{10}{4} = \frac{15}{6} = \frac{20}{8} = \frac{25}{10}$

4. $\frac{9}{5} = \frac{18}{10} = \frac{27}{15} = \frac{36}{20} = \frac{45}{25}$

5. $\frac{4}{1} = \frac{8}{2} = \frac{12}{3} = \frac{16}{4} = \frac{20}{5}$

6. $\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10}$

7. $\frac{3}{5} = \frac{6}{10} = \frac{9}{15} = \frac{12}{20} = \frac{15}{25}$

8. $\frac{18}{1} = \frac{36}{2} = \frac{54}{3} = \frac{72}{4} = \frac{90}{5}$

9. $\frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{4}{16} = \frac{5}{20}$

10. $\frac{3}{8} = \frac{6}{16} = \frac{9}{24} = \frac{12}{32} = \frac{15}{40}$

11. $\frac{20}{1} = \frac{40}{2} = \frac{60}{3} = \frac{80}{4} = \frac{90}{5}$

12. $\frac{5}{6} = \frac{10}{12} = \frac{15}{18} = \frac{20}{24} = \frac{25}{30}$

SPM5/U15/326

## Finding the Missing Term in Equivalent Rates

Complete.

1. $\frac{14}{16} = \frac{7}{8}$ (14 ÷ 2; 16 ÷ 2)

2. $\frac{2}{5} = \frac{6}{15}$ (2×3; 5×3)

3. $\frac{3}{4} = \frac{21}{28}$

4. $\frac{42}{14} = \frac{3}{1}$

5. $\frac{12}{18} = \frac{2}{3}$

6. $\frac{1}{3} = \frac{3}{9}$

7. $\frac{6}{4} = \frac{3}{2}$

8. $\frac{7}{4} = \frac{28}{16}$

9. $\frac{2}{5} = \frac{10}{25}$

10. $\frac{9}{12} = \frac{3}{4}$

11. $\frac{5}{1} = \frac{15}{3}$

12. $\frac{4}{12} = \frac{1}{3}$

13. $\frac{49}{35} = \frac{7}{5}$

14. $\frac{1}{6} = \frac{7}{42}$

15. $\frac{2}{3} = \frac{18}{27}$

16. $\frac{45}{72} = \frac{5}{8}$

17. $\frac{3}{8} = \frac{24}{64}$

18. $\frac{32}{24} = \frac{4}{3}$

19. $\frac{30}{48} = \frac{5}{8}$

20. $\frac{36}{45} = \frac{4}{5}$

NAME

SPM5/U15/327

## Finding the Missing Term Using Cross Products

Complete.

| | | | |
|---|---|---|---|
| 1. $\frac{10}{4} = \frac{25}{10}$<br>$4 \times ? = 10 \times 10$<br>$4 \times ? = 100$<br>$4 \times 25 = 100$ | 2. $\frac{4}{8} = \frac{5}{10}$<br>$4 \times ? = 8 \times 5$<br>$4 \times ? = 40$<br>$4 \times 10 = 40$ | 3. $\frac{6}{9} = \frac{10}{15}$ | 4. $\frac{12}{18} = \frac{8}{12}$ |
| 5. $\frac{4}{12} = \frac{5}{15}$ | 6. $\frac{6}{8} = \frac{15}{20}$ | 7. $\frac{20}{4} = \frac{15}{3}$ | 8. $\frac{15}{18} = \frac{35}{42}$ |
| 9. $\frac{35}{63} = \frac{10}{18}$ | 10. $\frac{12}{30} = \frac{18}{45}$ | 11. $\frac{21}{56} = \frac{6}{16}$ | 12. $\frac{12}{27} = \frac{16}{36}$ |
| 13. $\frac{15}{27} = \frac{20}{36}$ | 14. $\frac{18}{63} = \frac{4}{14}$ | 15. $\frac{6}{24} = \frac{4}{16}$ | 16. $\frac{42}{36} = \frac{18}{15}$ |

SPM5/U15/328-329

## Writing Percents

Write each of these as a percent.

| | | | |
|---|---|---|---|
| 1. 56:100 56%<br>$\frac{56}{100}$ | 2. 0.72 72%<br>$\frac{72}{100}$ | 3. $\frac{48}{100}$ 48% | 4. $\frac{1}{4}$ 25% |
| 5. 94:100 94% | 6. $\frac{15}{100}$ 15% | 7. 0.33 33% | 8. $\frac{1}{10}$ 10% |
| 9. 3:5 60% | 10. 8:100 80% | 11. 0.07 7% | 12. $\frac{1}{2}$ 50% |
| 13. 0.3 30% | 14. $\frac{9}{10}$ 90% | 15. $\frac{2}{5}$ 40% | 16. 6:10 60% |
| 17. $\frac{3}{4}$ 75% | 18. 0.8 80% | 19. $\frac{50}{100}$ 50% | 20. 0.67 67% |

NAME _____

## Practice

Perform the indicated operation.

1. $\begin{array}{r} \$9.46 \\ -\ 7.58 \\ \hline \$1.88 \end{array}$

2. $\begin{array}{r} 508 \\ \times\ 79 \\ \hline 40132 \end{array}$

3. $\begin{array}{r} 2739 \\ 681 \\ +\ 4075 \\ \hline 7495 \end{array}$

4. $\begin{array}{r} 7\frac{1}{5} \\ +\ 2\frac{3}{5} \\ \hline 9\frac{4}{5} \end{array}$

5. $26\overline{)5317}$ 204 R13 or 204.5

6. $5\overline{)2}$ 0.4

7. $\begin{array}{r} 4.071 \\ +\ 2.983 \\ \hline 7.054 \end{array}$

8. $\begin{array}{r} 4006 \\ -\ 1278 \\ \hline 2728 \end{array}$

9. $\begin{array}{r} \$46.55 \\ \times\ 57 \\ \hline \$2653.35 \end{array}$

10. $36\overline{)\$27}$ $0.75

11. 86 778 ÷ 27
3214

12. 43 x 21 x 9
8127

13. 4.739 + 0.861
5.600

14. 5 x 3.409
17.045

15. 77 043 − 2 986
74 057

16. 8.582 ÷ 14
0.613

Solve. Show your work.

17. Potatoes cost $0.79/kg at a store. If we buy 8 kg, how much will they cost? $6.32

18. Sir John A. Macdonald was born in 1815 and died in 1891. How old was he at his death? 76

19. At the concert the 3 musical pieces lasted 28 min, 14 min, and 21 min. What was the average length of each piece? 21 min

20. Sylvia bought a large wheel of Brie cheese. It had a mass of 3 kg and cost $22.17. How much did each kilogram cost? $7.39

21. Sarah plans to arrange 96 jars of jelly on the store counter in 8 rows. She wants an equal number of jars in each row. How many will go in each row? 12

22. Canada has a shoreline on the Great Lakes of 7562 km and a coastline on the oceans of 96 069 km. What is the total of these two? 103 631 km

NAME _____

## Checking Up -- Multiplication and Division

Perform the indicated operation.

1. $38 \times 3 = 114$

2. $3\overline{)204} = 68$

3. $953 \times 5 = 4765$

4. $8\overline{)365} = 45\ R5$ or $45.625$

5. $70.4 \times 6 = 422.4$

6. $8\overline{)3184} = 398$

7. $73 \times 49 = 3577$

8. $5\overline{)248.5} = 49.7$

9. $9.3 \times 2.6 = 24.18$

10. $47\overline{)3854} = 82$

11. $7.5 \times 27.4 = 205.50$

12. $157.5 \div 6 = 26.25$

13. $8 \times \$30.78 = \$246.24$

14. $\$25.56 \div 9 = \$2.84$

15. $658 \times 279 = 183\,582$

16. $17\,806 \div 58 = 307$

Solve. Show your work.

17. Mort wrapped 6 apples in each tray. He had 830 apples. How many trays did he fill? 138

18. Faith cut 196 pieces of cord. Each cord is 3.8 m long. How much cord did she use in all? 744.8 m

19. The field has 85 rows of cabbages. There are 46 cabbages in each row. How many cabbages are in the field? 3910

20. The Director has \$63 750 to spend on the 15 projects. What is the average amount of money that can be spent on each project? \$2550

NAME _____

## Checking Up -- Computation

Perform the indicated operation.

1. $792 \times 3 = 2376$

2. $412 - 315 = 97$

3. $1698 + 3862 = 5560$

4. $7\overline{)588} = 84$

5. $498 \times 60 = 29880$

6. $5\overline{)3235} = 647$

7. $256.4 + 673.9 = 930.3$

8. $86 \times 79 = 6794$

9. $8\overline{)314.8} = 39.35$

10. $3.365 - 0.486 = 2.879$

11. $47.5 \times 8.4 = 399.00$

12. $46\overline{)2944} = 64$

13. $6000 - 4258 = 1742$

14. $\$59.87 + \$48.79 = \$108.66$

15. $7\overline{)5649} = 807$

16. $0.8 \times 0.7 = 0.56$

17. $5\frac{4}{7} + 4\frac{5}{7} = 10\frac{2}{7}$

18. $\$40.54 - \$31.57 = \$8.97$

19. $4752.3 \div 7 = 678.9$

20. $205 \times 384 = 78\,720$

21. $6\frac{2}{5} - 3\frac{4}{5} = 10\frac{1}{5}$

22. $38 \times \$6.85 = \$260.30$

23. $\$4022.10 \div 82 = \$49.05$

24. $9.87 + 14.36 + 0.82 = 25.05$

Solve. Show your work.

25. Tickets cost $5.75 each. Mr. Bauderbuck bought 24. How much did he pay? $\$138.00$

26. Trish needs 25 000 points. At present, she has 18 455. How many more must she get? 6545

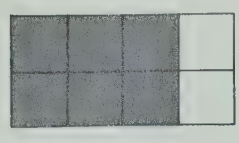
27. Repairs cost $58.13. Labor cost $18.75. Gasoline cost $15.50. What was the total bill at the service station? $\$92.38$

28. The 1036 new cars were divided equally among 7 dealers. How many did each dealer receive? 148

NAME _____

## Checking Up -- Decimals and Fractions

Write two equivalent fractions for each picture.

1.  $\frac{6}{8}, \frac{3}{4}$

2. $\frac{2}{6}, \frac{1}{3}$

3. $\frac{4}{10}, \frac{2}{5}$

Write each fraction as a decimal.

4. $\frac{4}{10}$ 0.4
5. $\frac{3}{4}$ 0.75
6. $\frac{7}{2}$ 3.5
7. $\frac{12}{5}$ 2.4

Write each decimal as a fraction in simplest form.

8. 0.3 $\frac{3}{10}$
9. 0.25 $\frac{1}{4}$
10. 0.6 $\frac{3}{5}$
11. 0.50 $\frac{1}{2}$

Write each improper fraction as a number in mixed form.

12. $\frac{35}{8}$ $4\frac{3}{8}$
13. $\frac{17}{4}$ $4\frac{1}{4}$
14. $\frac{29}{9}$ $3\frac{2}{9}$
15. $\frac{9}{2}$ $4\frac{1}{2}$

Write each number in mixed form as an improper fraction.

16. $6\frac{1}{2}$ $\frac{13}{2}$
17. $7\frac{2}{3}$ $\frac{23}{3}$
18. $3\frac{1}{4}$ $\frac{13}{4}$
19. $5\frac{4}{5}$ $\frac{29}{5}$

Use >, <, or = to make a true statement.

20. $\frac{3}{5} > \frac{4}{7}$
21. $\frac{2}{3} = \frac{4}{6}$
22. $\frac{2}{7} > \frac{1}{6}$
23. 3.1 > 3.02
24. 0.16 > 0.106
25. 4.3 = 4.30

List from least to greatest.

26. 2.09, 2.19, 2.109, 2.019, 2.1, 2.11 2.019, 2.09, 2.1, 2.109, 2.11, 2.19
27. 0.06, 0.6, 0.606, 0.006, 0.66, 0.066 0.006, 0.06, 0.066, 0.6, 0.606, 0.66

Round to the

28. nearest tenth. 3.418 3.4
29. nearest hundredth. 0.205 0.21

Find the missing term.

30. $\frac{3}{7} = \frac{18}{42}$
31. $\frac{2}{5} = \frac{10}{25}$
32. $\frac{4}{6} = \frac{6}{9}$
33. $\frac{27}{36} = \frac{6}{8}$

Find

34. $\frac{1}{6}$ of 42. 7
35. $\frac{3}{7}$ of 49. 21
36. $\frac{4}{9}$ of 36. 16
37. $\frac{2}{5}$ of 30. 12

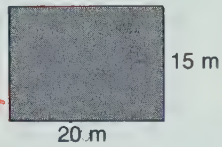
NAME _____

## Checking Up -- Measurement and Graphing

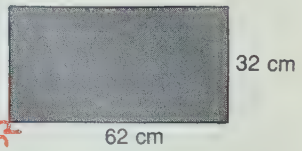
Use a centimetre ruler.
Measure to find

1. the perimeter. 26 cm
2. the area. 22 $cm^2$

For the rectangle shown,

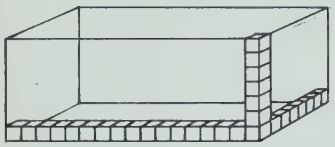


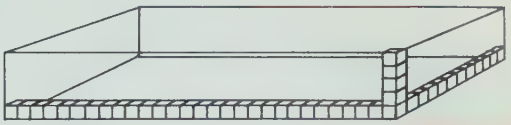

3. find the perimeter. 70 m
4. find the area. 300 $m^2$




5. find the perimeter 188 cm
6. find the area. 1984 $cm^2$

Each small cube represents a cubic centimetre.
Give the volume of each rectangular prism in cubic centimetres.

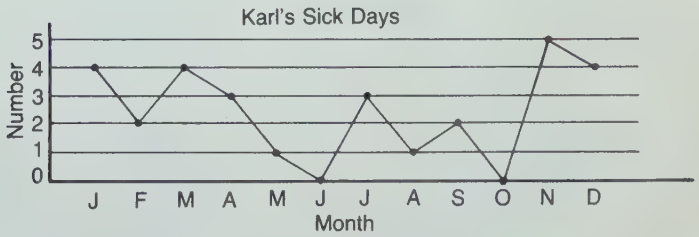
7.  952 $cm^3$

8.  1740 $cm^3$

Complete.

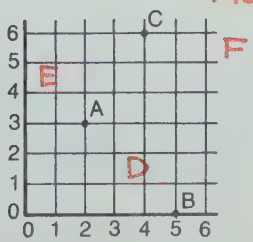
9. 170 cm = 1.7 m
10. 2000 mL = 2 L
11. 4.32 m = 4320 mm
12. 0.6 kg = 600 g
13. 900 mm = 0.9 m
14. 53 mm = 5.3 cm
15. 620 $cm^3$ take the same space as 620 mL.
16. 5.9 L take the same space as 5900 $cm^3$.
17. The mass of 7.2 L of water is 7.2 kg.
18. The mass of 1600 mL of water is 1600 g.

Use the line graph.




19. During which month(s) did Karl have the most sick days? November
20. During which month(s) did Karl have the fewest sick days? June, October
21. During which 3 months in a row did Karl have the most sick days? January, February, March

Name each point with an ordered pair of numbers.




22. A (2,3)
23. B (5,0)
24. C (4,6)

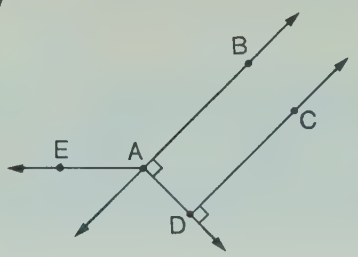
Plot each point.

25. D(3, 1)
26. E(0, 4)
27. F(6, 5)

NAME

## Checking Up -- Geometry

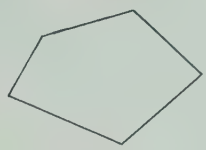
For the picture, name




1. a line and line segment that are perpendicular. $\overleftrightarrow{AB}$ and $\overline{AE}$ or $\overline{AD}$
2. a line and a ray that are parallel. $\overleftrightarrow{AB}$, $\overrightarrow{DC}$
3. an obtuse angle. $\angle EAD$
4. two congruent angles. $\angle BAD$, $\angle CDA$

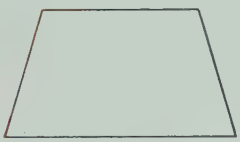
Name

5. the kind of polygon. pentagon

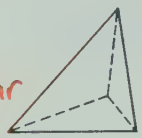


6. the kind of triangle. isosceles

7. the kind of quadrilateral. trapezoid

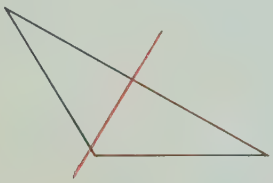


8. the kind of solid. triangular pyramid

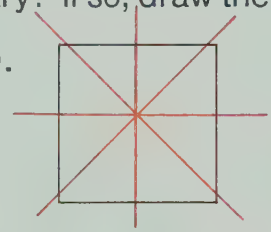


Does the shape have line symmetry? If so, draw the line(s) of symmetry.

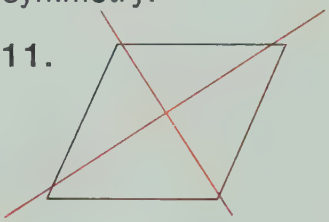
9.



10.

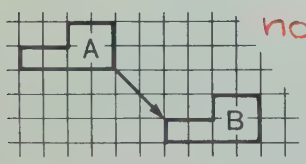


11.

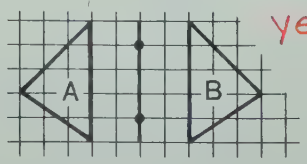


Use tracing paper.

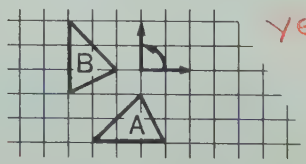
12. Test whether shape A is a slide image of shape B for the slide arrow shown. no



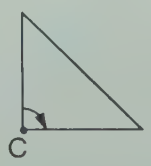

13. Test whether shape A is a flip image of shape B for the flip line shown. yes




14. Test whether shape A is a turn image of shape B for the turn angle shown. yes




15. When you turn this triangle about point C to build a polygon, is the result another triangle, a square, a pentagon, a hexagon, or an octagon? square



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F255

For a lesson like the one shown, have students who exhibit difficulty in understanding the material in the textbook proceed through the *diagnostic/instruction box* using the *completely-worked example* for review. Go over the example with students individually. Have them verbalize their understanding of the process involved. Then have them proceed through a solution of the *partially-worked example* while you watch and listen. Check their understanding by having them complete the *decision exercises* in the diagnostic/instruction box on their own. Use their performance on these exercises as a basis for deciding whether they have grasped the required concept or skill to continue on the remaining exercises, or whether more help is necessary such as that provided in the *Starting Points in Mathematics Reteaching Blackline Masters*.

One diagnostic/instruction box is provided with every lesson that relates to a textbook lesson. A completely-worked example is a feature in most of these boxes. When the task requires a rather "large" response, however, such as in the creation of a graph, the first exercise may be only partially complete. After discussing the work shown for such an exercise, have the students complete the exercise for a check of their understanding while you watch and listen.

For some lessons, such as those which develop concepts rather than skills, there may be no partially-worked example following the first completed example. For such lessons the student simply proceeds to the other exercises in the diagnostic/instruction box following your initial review with them of the worked example and their verbalization of the concepts involved. For these exercises, you may wish to have them justify their responses verbally as they proceed while you listen and watch.

Space for student answers is provided after or below each exercise. This positioning is usually suggested by what is shown in the worked examples.

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